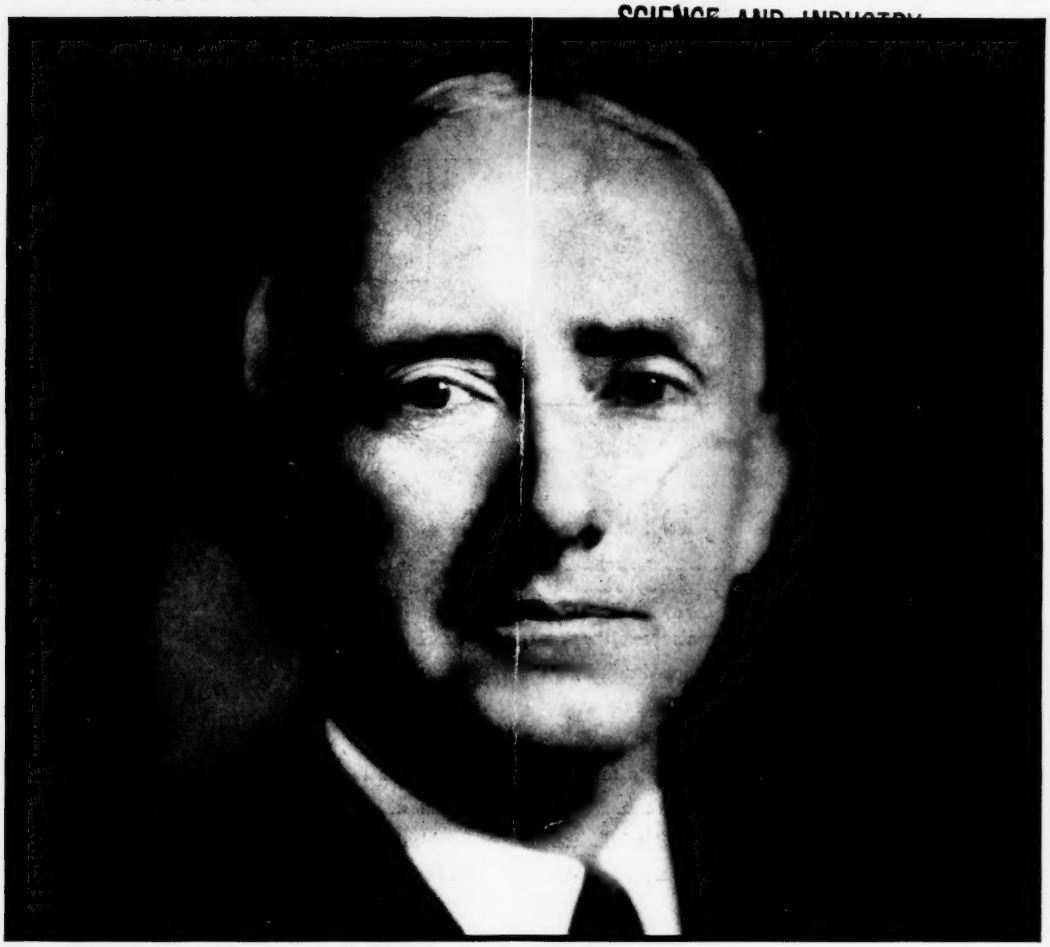
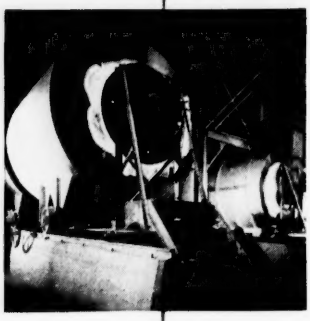
MANUFACTURERS RECORD

AUG 9 1948



Thomas W. Martin

His leadership was again in evidence at the Gorgas mine experiments—Page 46



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MANUFACTURERS RECORD

ESTABLISHED 1882

Devoted to the Industrial Development of the South and Southwest

Volume 117 · August, 1948 · Number 8

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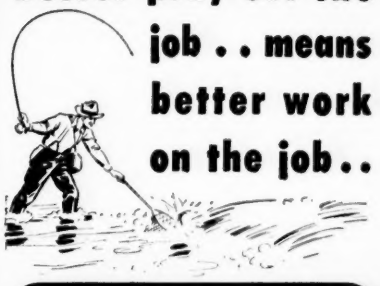

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MANUFACTURERS RECORD

COVER ILLUSTRATION — People all over the nation are becoming familiar with the face and name of Thomas Wesley Martin. Southerners have known him well for years. Evidence of their knowledge of him and of their appreciation of what he has done for his native state of Alabama and for the South as a whole was presented back in the winter of 1946-47 when "Dixie Business" named him the "South's Man of the Year." Last year when "Forbes" magazine decided to select and honor the fifty leading businessmen in the U. S., Tom Martin was in the group. We are pleased to call attention to his splendid record of accomplishment particularly now when he and the organization he heads, the Alabama Power Co., are embarking on their second series of experiments in underground gasification of coal at the Gorgas mine.

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This Month

Chemical Manufacture

This is the third in a series of articles by Caldwell R. Walker, Editor of the *Blue Book of Southern Progress*, on the South's leading manufacturing enterprises. These articles, appearing in order as to value of product, have previously dealt with the food industry and the textile industry in that order. Chemical manufacture, the third ranking Southern industry, is one of the most rapidly growing in the area. Value of products in 1946 stood at $1.8 billions. Estimates for 1947 place the value near $3 billions.—Page 35.

Research Service

The State Engineering Experiment Station of the Georgia Institute of Technology was set up for the purpose of rendering some of the research assistance needed by industry and thereby aiding directly in the development and integration of industrial activities and the better utilization of the South's resources. An important part of the station's work is carried on in the Technical Information Division. B. H. Weil, chief of this division, describes the variety of special services that it provides.—Page 36.

Labor Language

Knowledge of labor relations language is a prerequisite in the business field for a better understanding of human relations, according to E. W. Mounce and R. D. Stevens, two specialists in labor matters. In their opinion labor relations mumbo-jumbo is here to stay. If you don't understand a Supreme Court ruling in the realm of labor relations, if you are at a loss when union and management engage in collective bargaining and don't know "Who's Who" or what's what . . . read their article. —Page 39

Basing Point Decision

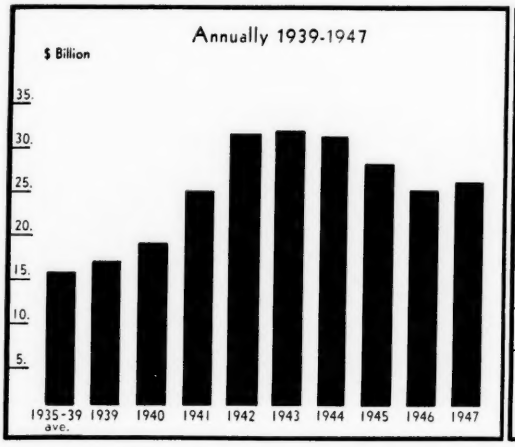
The Supreme Court's ruling regarding the basing point system of pricing, which had been used by a number of our major industries for several years, has led to the abandonment of the system by these industries. How will the current rapid rate of industrial expansion in the South be affected by this action? Mr. Sidney Fish, a newsman who has been intimately associated with the industrial affairs of the nation for several years, discusses the problems that this action poses for Southern industry. —Page 41

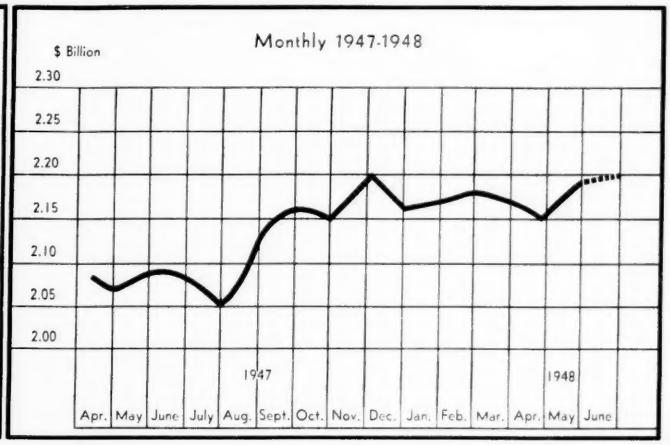
Southern Business Outlook

PRODUCTIVE ACTIVITY

16 Southern States

Manufacturing—Construction—Farms—Mines In 1935-1939 Dollars





FOLLOWING THE TREND

Return of mineral production to a normal rate in the month of May after settlement of the coal strike, and a substantial upturn in construction activity, as evidenced by contracts awarded, brought the level of business activity in the 16 Southern states back to the area it occupied before the coal stoppage became effective. Manufacturing showed little, if any, change from the previous month. A slight gain in dollar value of output is to be discounted by a further slight rise that occurred in the prices of manufactured goods. Physical production for several months has been on a level plane. Within the industry as a whole, changes of a seasonal nature have been occurring, but these have just about canceled each other out. Textiles are seasonally down, food manufacturing up. Some states report some falling off in durable goods production, others report a contrary trend. The same situation applies to nondurables. On the whole, changes are of so minor a nature as to give little indication of forthcoming trend. Preliminary reports that have come in thus far for June and the beginning of July seem to bear out the conclusion that business rests in a delicate balance, susceptible on the upward side to any additional inflationary influences that may emerge, or on the downward side to possible consumer resistance to prices which here and there is again in evidence.

MONTHLY STATISTICS

PRODUCTION, FINANCE, TRADE

	Latest Month	*Preced. Month*	*Year Ago*
Manufacturing ($ mil.)	$3,073	$3,030	$2,688
Durables	1,074	1,045	967
Nondurables	1,999	1,985	1,721
Construction Awards	222	247	166
Farm Marketings	568	561	530
Mineral Output	567	452	388
Steel (1,000 tons)	1,228	929	1,175
Pig Iron (1,000 tons)	952	603	793
Cotton Consumed (1,000 bales)	694	731	739
Spindles (mil. spin-hrs.)	8,925	9,416	8,230
Pine Lumber Cut (mil. bd-ft.)	894	860	886
Electric Output (mil. kw-hrs.)	7,950	7,574	7,200
Meat Slaughter (1,000 head)	1,228	1,459	1,176
Coal Output (mil. tons)	29	27	26
Crude Oil Output (mil. bbls.)	108	111	99
New Corporations	1,903	2,117	2,158
Business Failures	63	67	37
Bank Deposits (reporting banks)	$10,020	$10,079	$7,863
Bank Debits (all banks)	$17,318	$16,104	$14,365
Retail Sales	$2,726	$2,648	$2,508
Carloadings	1,207	1,206	1,153

*Revised. Steel and iron data from reports of American Iron & Steel Institute; Pine Lumber from Southern Pine Association; Crude Oil from American Petroleum Institute; New business and business failures, Dun & Bradstreet; Carloadings, Association of American Railroads; Other data from U. S. federal agency statistics.

MANUFACTURING EMPLOYMENT
(thousands)

	Latest Month	*Preced. Month*	*Year Ago*
Ala.	228.0	227.3	222.8
Ark.	74.6	74.9	71.4
Fla.	93.2	83.3	88.9
Ga.	252.0	252.4	249.7
Ky.	128.3	128.6	124.0
La.	137.4	139.1	136.5
Md.	228.6	228.2	229.1
Miss.	89.6	89.9	88.5
Mo.	360.5	361.2	351.0
N. C.	381.4	382.6	366.4
Okla.	56.5	56.3	53.0
S. C.	195.4	195.8	189.0
Tenn.	250.6	251.3	243.4
Tex.	341.7	338.7	324.8
Va.	210.4	212.5	209.4
W. Va.	129.1	129.4	131.0
South	3,157.3	3,151.5	3,078.9

Of the above tabulation, data are from the monthly statistical report of Alabama Dept. of Industrial Relations; Florida Industrial Commission; Georgia, Department of Labor; Maryland, State Department of Labor and Industry; Louisiana, Louisiana State University, College of Commerce; North Carolina, State Department of Labor; Oklahoma, State Employment Security Commission; Tennessee, State Department of Employment Security; Texas, the University of Texas, Bureau of Business Research; Virginia, Department of Labor and Industry. In the absence of cooperative aid from other states, the remaining figures are result of monthly surveys by MANUFACTURERS RECORD.

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The Southern Spotlight

The Piedmont Area

BY J. A. DALY

CHARLOTTE — Piedmont area manufacturers' visibility and ceilings were heavily beclouded at the end of July by upsurges in prices and wages and by disquieting developments in domestic and international affairs. Forward buying was severly limited, a tendency which darkened the outlook for the steadily curtailing cotton textile industry. Elsewhere over this area, manufacturing conditions were spotty, though production rates held at high levels. Bank clearings at principal centers reflected high velocity of circulation. Chief adverse factors, the ultimate influence of which was unpredictable at the start of August, were nervousness in cotton and securities markets, the extra session of Congress, and the delicate military situation.

• **Retail Sales** were at a seasonal low level but seasonal and staple merchandise was in brisk call. Leading merchants continued aggressive trade promotion. Some reports indicated increasing resistance to prices of men's and women's suits, which created some doubts about fall season sales volumes. Curtailed knitting mill operations reflected the "bare leg fad" and a marked trend in women's preference for service nylon hose instead of the formerly most popular sheer hose. Appliance sales were about steady after a recession in recent weeks. Consumer credit was liberally committed but prompt payments reflected inflated incomes. New automobile and truck demand held steady well above supply. Used car demand and prices eased.

• **Production Varied** irregularly during the July vacation period, more extensive than in recent years particularly for the textile industry. Spokesmen for manufacturers' organizations and construction contractors said many segments of Piedmont industry are alarmed "over price and supply problems created by the abrupt ending of basing point pricing" by steel, cement and other producing industries. Several elements of the textile industry abandoned freight prepayment allowances. Agitation developed in several quarters for quick construction of cement and copper wire mills in the Carolinas.

• **New Construction** leadership was maintained by Charlotte as Carolina cities continued their record-setting pace. North Carolina permits were holding around $9,000,000 per month with four-fifths of the projects being housing. South Carolina cities setting records were Greeneville and Spartanburg.

• **Industrial Employment,** except in the textile industry, held steady in number during July and average hourly earnings advanced slightly. North Carolina's total manufacturing employment, latest Federal report, stood at 381,400 workers, off only 1,200 from April. In South Carolina, job placements increased broadly, notably in construction and non-agricultural work. Piedmont centers reported minor shortages of skilled workers.

• **Labor Leaders** were negotiating as July ended with textile industry managements in several centers for wage boosts of as much as fifteen cents per hour.

The Southeast

BY JOHN MEBANE

ATLANTA—There are no skids under prices in the Southeast these days, and the consumer dollar is not stretching as far as it did a few months ago. Latest reports indicate retail dollar volume in several lines is up slightly over a year ago with unit volume sales a little down. Industry, despite high building costs, continues to move into the region with diversification an encouraging feature. Housing continues apace, and there is no letup in realty sales.

• **Retail Sales** of automobiles, dwellings and wearing apparel are higher currently than a year ago, the Georgia Bureau of Business Research reports. There have been no such gains, however, in furniture, food or gasoline. Heaviest retail gains are being recorded in Savannah, Atlanta and Columbus, in Georgia, with recent declines in Macon and Augusta.

• **Industrial Expansions** in Atlanta since the first of the year total fifty-three new plants which will employ about 1,239 persons according to the Industrial Bureau of the Chamber of Commerce. These plants, together with other new offices, factory branches and retail establishments, will add an estimated $5,000,000 to the city's annual payroll.

• **Local Capital** is now playing a major role in financing the Southeast's industrial development. For example, R. V. Connerat, executive director, Agricultural and Industrial Development Board of Georgia, reports that of 1947's approximately 500 new Georgia industries, about 90 per cent had paid-in capital provided either by savings or the firm's principals or funds obtained from sources within the communities in which they located. About half these new industries started with capital of $10,000 or less.

• **Labor's Demand** for a fifteen cent an hour increase was presented to textile mill operators over the Southeast in July by CIO Textile Workers Union of America. Union also asked for a company-paid insurance program and six holidays with pay. Mills affected are those in cotton yarn and weaving and rayon weaving. The demand was attributed to rising living costs.

• **Industrial Development** Area announced recently by the Nashville, Chattanooga and St. Louis Railway is to be located on 170 acres near Atlanta, and is said to be the first of its kind in the South. The multimillion dollar project will assure individual concerns having like needs being placed in the same portion of the development. Provision is being made for rail lines, extensive paved areas for trucking operations and road accesses. The Railway, with the aid of business and civic groups, also plans extensive program over the entire nation to acquaint industry in other sections with the advantages of Georgia locations.

• **Dividends Distributed** near the end of July by Georgia firms or companies with large local interest totaled $12,075,000 for the quarter. Topping dividends was Coca-Cola Co., with $4,108,865 on a like number of shares of common, and $900,000 on 600,000 shares of $3 class A stock.

(*Continued on page* 12)

The Southern Spotlight

(*Continued from page* 11)

Birmingham District

BY R. W. KINCEY

BIRMINGHAM—Prices continue upward as do wages as the South's industrial machine grinds away on the largest volume of business in history. Prime news of the month, in this district, was the new pricing system by U. S. Steel and while there is some division of opinion, most observers believe the move will be a potent factor in attracting diversification to the district once approximately normal conditions return.

• **Price Increases** were momentarily expected. Already posted is a $4 a ton increase in pig iron by two merchant producers. Up $1.15 a ton was coke, and up an average of 13 cents an hour are the wages of some 23,000 steelworkers. It all adds up, in the minds of many as another step in the dangerous inflation spiral.

• **Industrial Orders** continue to come into the district in substantial volume. Heading the list were orders totaling approximately 3,000 freight cars during the month for a total valuation of about $12,000,000. They extend Pullman's production schedule well into the new year.

Pipe plants, foundries and miscellaneous industries are well booked. They would go even heavier on the order end except for the continued shortage of steel and pig iron which has cost and is costing this district terrifically in business and plant expansions.

• **Employment Gains** were slight in the Birmingham district over the past month, but increased to an estimated 177,845 of which, in the immediate district, some 58,255 are employed in manufacturing and 119,500 in non-manufacturing. Some gain was shown in the blast furnace and steel mill group, while in non-manufacturing, construction accounted for most of an increase of 425. Estimated unemployment has increased to 10,250 due largely to school vacations. Little further change is likely before September.

• **Important Developments** of the month were the announcement of continuation of underground coal mine experiments by the Alabama Power Co. and the Bureau of Mines, and announcement of an additional building program by Southern Research Institute. Preliminary work on the Gorgas mine experiment is already under way. It is again attracting national attention.

A $200,000 three-story, air-conditioned building for the Research Institutes division of plastics and textiles, and additional machine shop facilities will adjoin the institute's present buildings on South Twentieth St.

• **New Construction** is on the upgrade. In the making are Alabama Power Co. new steam plant at Gadsden, the $32,000,000 Coosa River Newsprint plant, a $100,000 remodeling job for Sokol's store, a $125,000 addition to the Woodlawn Presbyterian Church, a $20,000 Homewood building for Liberty National Life, and numerous projects over the state.

First shipment of steel pipe from Republic's tube mill at Gadsden to Southern Natural Gas Co., at Birmingham. Gas starved industries during severe winter weather view the bringing of additional natural gas into the district with great satisfaction.

The Southwest

BY DAN SUMMERS

SAN ANTONIO — Texas builders filled their ten gallon hats with nails the first-half of this year and took on the biggest job they ever contracted. With $456,337,287 in contracts filed in their hip pockets, a record surpassing the peak $405,572,281 in 1942, the builders expect to complete more residential building, especially in the $10,000 to $100,000 class, less industrial construction, more commercial buildings, fewer public works and a greater number of apartments.

• **Record Building** awards placed 19,530 separate projects under contract. The biggest load of these awards fell in May and June. Top award in June went to Leonard Construction Co., Chicago, for construction of the $5,000,000 Houston Chemical plant for Southern Acid and Chemical Co. Henry Beck, Dallas, took the $3,000,000 contract for building the new office building for Atlantic Refining Co. in Dallas. The new record alone is not impressive enough for the average Texan. He wants his share of what the other fellow brags. For instance, a movie studio. He'll see the beginning of one very shortly in San Antonio. Ralph A. Ralle, president of Ralle United, has announced that ground work will start early this fall on a $10,000,000 movie and television studio supported by a group of Texas oil men.

• **Industrial Plants** in the area continued to increase as the Limestone Products, Inc., took its position among the young and growing North Texas industries in July, and settled down to the job of processing 300 tons of limestone daily for use in the metallurgical industry, and in numerous products such as glass, paper, paints and varnishes, medicine and soap.

An estimated $400,000 will be spent by Frontier Chemical Co. to enlarge its hydrochloric acid plant in Yoakum County in West Texas. The new units should be in operation by December, and output then can be expected to reach 2,000 tons of acid monthly along with an estimated 600 tons of caustic soda.

• **Gasoline Stocks** have declined in the face of increased yields despite capacity production. Larger premiums over posted prices for an increasing volume of crude petroleum has led many to believe that a general increase in posted prices might result from an extension of this practice.

• **Consumer Purchases** remain at continued high levels although department stores report resistance to rising prices and more cautious buying on the part of the consumer in selecting his purchase. Greater volumes of low priced commodities are being sought. Store officials still refrain from placing themselves in line for any large-scale orders, preferring to observe more the trend in prices and consumer attitude as well as other business activity.

• **All Crops** appeared to be making satisfactory progress in early July over most of the Southwest area. Oats and barley, perhaps an exception because of the condition in which these crops were left following the late spring freeze and later drought, were making only a fair showing. Rain in late June improved crop and range feed prospects in many areas.

NEW AND EXPANDING PLANTS

COMPILED FROM REPORTS PUBLISHED IN THE DAILY CONSTRUCTION BULLETIN

ALABAMA

BIRMINGHAM—Continental Gin Co., storage building and fabricating shop, $30,000.
BIRMINGHAM—Al DeMent Chevrolet Co., garage, 2613 33rd Ave., N., $68,000.
BIRMINGHAM—Miller, Martin and Lewis, service building.
BIRMINGHAM — Shades Valley Sun, office building, $30,000.
BIRMINGHAM—Sokol Bros. Furniture Co., remodeling, $100,000.
HUNTSVILLE—Crescent Stages, Inc., Anniston, bus station.
OZARK—Dominey Motor Co., building.
SELMA — American Candy Manufacturing Co., factory.

ARKANSAS

CROSSETT—Crossett Paper Mills, personnel building, addition and new equipment.
EL DORADO—Chemical Construction Corp., Empire State Building, N. Y., chemical plant.
HARRISON—KC Packing Co., Joplin, Mo., branch plant for processing fresh and cured meats.
LITTLE ROCK—Harry L. Hastings, auto and truck sales room and garage, SE corner 5th and Rector Sts.
LITTLE ROCK—Leird Lumber and Manufacturing Co., plant expansion.
LITTLE ROCK — Southwestern Bell Telephone Co., addition.

FLORIDA

BRADENTON—Chapman Newspapers, Columbia, S. C., addition to newspaper plant.
CORAL GABLES — Don. O. Wilson, auto show room, corner Almeria and Salzedo Aves., $45,200.
DADE COUNTY — Charles Crandon, building.
FORT LAUDERDALE — Floridale Motors, 512 NE 6th Ave., garage and show room, $55,620.
FORT LAUDERDALE—Southern Brick Co., addition to garage, 1408 St. Andrews Ave.
FORT PIERCE — News Tribune, office building.
HIALEAH—Hialeah Race Course, Inc., addition and alterations to grandstand and clubhouse, $197,068.
HOLLYWOOD — Mr. See, service station, Dixie Highway and Cleveland St.
JACKSONVILLE — Portland Cement Co., Allentown, Pa., cement plant at Jacksonville Beach.
MIAMI—A. P. Adams, 2960 NW 27th Ave., factory building, NW 27th Ave., between NW 21st Terrace.
MIAMI—Atlantic Refining Co., 7290 NW 7th Ave., service station, 3070 NW 7th St.
MIAMI—Horace Z. Brunson, 1777 SW 13th Ave., office and plumbing shop, NW 24th St.
MIAMI—W. H. Dixon, service station, Lejeune Rd. and SW 12th St.
MIAMI—Higgins Co., 2388 W. Flagler St., office and warehouse.
MIAMI — Mal Marshall, Inc., addition to plant, 2214 Miami Ave.
MIAMI—Master Freezers, cold storage warehouse and offices, SW corner NW Miami Court 19th St.
MIAMI — Maule Industries, 1136 NW 21st Ave., office building.
MIAMI—Shaw Bros. Oil Co., two service stations, NW 27th Ave. and 54th St., and 3700 W. Flagler St.
MIAMI — U. S. Fluorescent Manufacturing Co., warehouse, 5110 NW 2nd Ave., $29,620.
MIAMI BEACH—Couture Motor Corp., two garage buildings, 825 5th St., $45,000.
MIAMI BEACH—G. M. Phillips, garage and service station, 7120 Abbott Ave., $32,000.
NORTH MIAMI—J. F. Young, 3904 Myrtle Ave., Erie, Pa., self-service laundry, NE 124th St. and 7th Ave.
ORLANDO — Eelbeck Milling Co., warehouse, $23,000.
ORLANDO — Seaboard Airline, one-story warehouse.

GEORGIA

ATLANTA—Earnest G. Beaudry, auto sales and service building, $85,000.
COLUMBUS—Muscogee Manufacturing Co., additions and alterations to Davis warehouse.
COLUMBUS—United Oil Corp., office building, $155,875.
CORNELIA—Chicopee Manufacturing Co., addition to lumite plant.
GRAY — Draper Corp., Hopedale, Mass., leased former Washburn Planing Mill factory, textile machinery.
LAVONIA—Albert J. Bartson Co., weaving mill, $307,877.
MACON—Glidden Co., modern plant for production of margarine, $2,500,000. Vegetable oil refinery, paint factory.

KENTUCKY

ASHLAND—Vogel Distributors, Inc., plant, $50,000.
ASHLAND—Washington Co., plant, $75,000.
LOUISVILLE — Strietmann Biscuit Co., warehouse, garage and office building, Algonquin Pkwy and 41st St.
WHITESBURG—Redash Eagle Coal Co., N. Y., washer and coal separator plant at Cowan Creek, $100,000.

LOUISIANA

ARABI—Dixie Packing Co., remodeling, repairs, and construction of smoke houses.
BATON ROUGE — Ethyl Corp., change house, $194,000.
HARAHAN—Freiberg Mahogany Co., conference room and dining room.
LAFAYETTE—Huval Bakery Co., alterations and additions.
LAFAYETTE—K. and T. Blueprint Co., office and working space.
NATCHITOCHES—Natchitoches Motor Co., improvements to building.
NEW IBERIA—Model Co., air-conditioned building.
NEW ORLEANS—Langlois Candy Co., office and warehouse, 4900 block Magazine St.
NEW ORLEANS—Pere Marquette Garage, Common and Baronne Sts., additional stories of service floors.

New and Expanding Plants
Reported in July—174
Total For
First Seven Months of 1948
1,574
First Seven Months of 1947
1,935

NEW ORLEANS—Leon C. Tujague, 830 S. Front St., three refrigerating boxes.
OPELOUSAS—LeFleur Garage, building on West Landry St., $32,000.
SHREVEPORT — Kaimbach Burchett Co., mill and warehouse addition, $150,000.
SHREVEPORT—Mosher Steel Co., building for fabrication plant, $43,000.
SHREVEPORT—Shreveport Journal, alterations and addition.
SHREVEPORT—F. Strauss and Sons, Inc., 1105 Marshall St., warehouse, $93,800.

MARYLAND

ANNAPOLIS — Capitol Broadcasting Co., standard station.
BALTIMORE — American Radiator and Standard Sanitary Corp., 5315 Holabird Ave., sand stroage shed, 5003 Holabird Ave., $32,000.
BALTIMORE—Brand Motor Co., show room and garage, 5104 York Rd.
BALTIMORE—Calvert Building and Construction Co., converting building, 215 W. Fayette St., into garage.
BALTIMORE—Cammarata's Bakery, 2403 Greenmount Ave., bakery building, 6003 Belair Rd.
BALTIMORE—Central Parking Co., deck above parking lot, north side Mulberry St. between Howard and Eutaw.
BALTIMORE—Coastal Tank Lines, Inc., 2504 Harford Rd., office and service building, Waterview Ave.
BALTIMORE—Consolidated Gas, Electric Light and Power Co., Lexington Bldg., Pimlico Substation.
BALTIMORE—Corkran Hill and Co., 1001 S. Dukeland St., alterations and additions to truck loading dock and at abattoir building, No. 3 S. Dukeland St.
BALTIMORE—Free State Equipment Co., Inc., office and shop building, 2807 Sisson St., $50,000.
BALTIMORE—Gassinger Frame Co., addition, 930 Clifford St.
BALTIMORE—Johnson Freight Terminal Co., terminal, W. Baltimore St.
BALTIMORE — Kelsey-Hayes Wheel Co., Detroit, Mich., plan factory for manufacture of parts for autos to be located near Bethlehem Steel at Sparrows Point.
BALTIMORE — Latex Distributing Co., ice and storage building, Hall and Nicholson Sts.
BALTIMORE—William A. Milby Co., office and warehouse, 2701 Cresmont Ave.
BALTIMORE—Sherwood Feed Mills, Inc., bulk grain warehouse, 801 Eastern Ave.
BALTIMORE—Samuel Steinbach, addition to warehouse, 1300 Russell St.
BALTIMORE—Texas Co., Munsey Bldg., service station, 3926 Falls Rd.
BALTIMORE—U. S. Industrial Chemicals, Inc., Fairfield, extension to research development shop.
BALTIMORE — Wanda Realty Co., Inc., freight terminal and office, 1700 W. Baltimore Ave., Morrell Park, $30,000.
BALTIMORE—Washington interests, N. B. Frost, attorney and spokesman, five-story garage on site of old Rennert Hotel, Saratoga and Liberty Sts.
BALTIMORE—Westinghouse Electric Corp., Philadelphia, Pa., addition to factory building, 4015 Foster Ave.
BROOKLYN—Texas Co., addition to office and garage.
CUMBERLAND — Richard Aubrey Raese, standard station.
SPARROWS POINT—Bethlehem Steel Co., machine shop, $25,000.
TOWSON—Shell Oil Co., 909 E. 22nd St., service station, $34,110.

MISSISSIPPI

BELMONT—Blue Bell, Inc., Greensboro, N. C., factory for manufacture of work clothes, $100,000.
CORINTH—City, addition to factory, block 604 Anderson addition, $31,856.
LAUREL—Laurel Motors, Inc., auto building, corner 5th and Magnolia Sts., $80,000.
LOUISVILLE—Board of Supervisors, Winston County, furniture factory, $118,571.
MERIDIAN — Carter Cleaners, cleaning plant, 7th Ave. and B St.
WINONA—Board of Supervisors, Montgomery County, factory building.

MISSOURI

BRENTWOOD—Standard Pipe Protection Co., Summit, N. J., plant for coating and wrapping protection of steel pipe, 3000 S. Brentwood Blvd., $500,000.
JEFFERSON CITY — Sexton Motor Co., Capital Ave., sales and service building, W. McCarty St.
ST. LOUIS—Ahrens and McCarran, Inc., warehouse addition, 4621 Beck Ave.
ST. LOUIS — Barry-Wehmiller Machinery Co., alterations to assembly plant, 4600 W. Florissant, $25,000.
ST. LOUIS—Eden Publishing House, 1724 Chouteau Ave., addition to pressroom, SE corner Chouteau Ave.
ST. LOUIS—Gilbert Buick, Inc., auto show room and garage, 3510 Gravois.
ST. LOUIS—Kelleher Motor Freight Line, terminal, $180,000.
ST. LOUIS—Edwin Manning, 2808 Ann Ave., printing shop, 3546 Watson Rd.
ST. LOUIS—Renard Linoleum and Rug Co., leased 8 story building, plan improvements.
SEDALIA—E. W. Thompson Motor Co., 400 S. Osage, sales and service building, $190,000.

NORTH CAROLINA

BURLINGTON — Alamance Motors, Inc., garage and show room.
BURLINGTON—Burlington Mills, acquired May-McEwan-Kaiser Hosiery Co.
CHARLOTTE—Belk Bros. Co., office building for Belks Buying Service, $400,000.
CHARLOTTE—B. F. Goodrich Co., office and warehouse building, $100,000.
CHARLOTTE—Nebel Knitting Co., Inc., installing additional machinery, part of expansion program.
CHARLOTTE—Ralston Purina Co., mill addition, elevator and warehouse.
ERWIN—Erwin Cotton Mills Co., building to house beaming for No. 2 mill; will install new equipment.
GASTONIA — A. M. Smyre Manufacturing Co., expansion and conversion of warehouse building, spun rayon.
GOLDSBORO—Wayne Dairy Cooperative, Inc., plant, $80,000.
GREENSBORO—Cone Mills Corp., addition to office building, 1201 Maple St., $120,000.
GREENSBORO—Southern Bell Telephone

NEW AND EXPANDING PLANTS

and Telegraph Co., exchange building and additions to present building.

ICARD—Icard Cordage Manufacturing Co., braider building and office building.

KANNAPOLIS—Kannapolis Manufacturing Co., leased 15,000 sq. ft. in Sears Textile building, manufacture bibs and wearing apparel.

ROCKY MOUNT — Davenport Motor Co., garage and sales room building, $42,490.

YADKINVILLE — Yadkin County Freezer Lockers, Inc., frozen food locker plant.

YANCEYVILLE—Caswell Development Co., manufacturing building for Atwater Hosiery Co.

OKLAHOMA

HUGO — Little Dixie Broadcasting Co., studio and office building.

OKLAHOMA CITY — William Volker and Co., building addition, 4 E. Grand, $85,300.

SOUTH CAROLINA

ROCK HILL — Rock Hill Telephone Co., main exchange building.

TENNESSEE

COOKEVILLE — Wilson Sporting Equipment Co., golf club factory.

FRANKLIN—W. G. Cowan, Jr., plant for manufacture of men's slippers along L and N Railroad.

KNOXVILLE—Knoxville Glove Co., addition of two floors to plant.

MEMPHIS—Chickasaw Building Co., Fall Bldg., alterations and repairs to ground floor.

MEMPHIS—Dealers Equipment Co., 330 S. Parkway, warehouse and office, $300,000.

MEMPHIS—Dixie Tank and Bridge, Inc., office building, $100,000.

MEMPHIS — Tidewater Supply Co., office and warehouse building, 1234 Island Home Ave., $100,000.

NASHVILLE—Mantle Lamp Co., V. S. Johnson, Jr., 223 W. Jackson, Chicago, Ill., plant, $4,000,000.

NASHVILLE—Washington Manufacturing Co., additional work on buildings, 218-222 2nd Ave., North, $60,000.

OBION — Obion Chamber of Commerce, erecting building for Salant & Salant for garment manufacture.

WAYNESBORO — Munns Cheese Co., factory building, $100,000.

TEXAS

AUSTIN — Central Freight Lines, freight terminal, Springdale Rd. and MKT RR., $90,000.

BAYTOWN—Daily Sun, addition.

CORPUS CHRISTI—American Bottling Co., warehouse, highway 77, near city limits.

DALLAS — Associated Holding Co., 4911 Cass, office building, $75,000.

DALLAS—Fulton Bag Co., warehouse, 1906 Gaisford, $38,000.

DALLAS — Huey and Philip, warehouse, office and factory building, Munger, Griffin and Magnolia Sts.

DALLAS—Texas and Pacific Railroad Co., garage building.

FORT WORTH — American Cyanimid Co., W. L. Spaulding, 30 Rockefeller Plaza, N. Y., addition to chemical plant, 600 N. Jones St., $115,000.

FORT WORTH — Southwestern Bell Telephone Co., Akard and Jackson Sts., Dallas, alterations and additions to No. 5 dial building.

FORT WORTH — George Switon, factory and warehouse, 2000 White Settlement Rd.

GAINESVILLE—Lone Star Gas Co., compressor unit, $271,500.

HOUSTON — William Cameron Co., warehouse and office building, east side of St. Bernard St., $270,567.

HOUSTON — Fruehauf Trailer Co., trailer building, Harrisburg Blvd. near Broadway and Galveston highway, $250,000.

HOUSTON — McCollum Laboratories, Inc., laboratory and office building, 1205 S. Shepherd Drive, $96,972.

HOUSTON — Red Roller Bituminous Co., shop building plus gate house, drives and walks.

HOUSTON—Seismic Exploration, Inc., office building.

HOUSTON—Texestate Corp., Warehouse A, Warehouse Row St., Warehouse Development.

HOUSTON—A. W. Weldon Corp., cafeteria building, 4900 block Main St.

KNOX CITY — Lone Star Gas Co., compressor unit, $271,500.

NEW BRAUNFELS — McGaugh Hosiery Mills, additions.

PASADENA—Southern Acid and Chemical Co., sulphuric acid plant, — miles below Pasadena, $6,000,000.

SAN ANTONIO—Borden Creamery, 875 E. Ashby Place, addition to east end of plant, $35,422.

SAN ANTONIO—Continental Oil Co., service station.

SAN ANTONIO—Magnolia Petroleum Co., service station, San Pedro and Zilla.

SAN ANTONIO—San Antonio Transit Co., administration building.

SAN ANTONIO — The Vogue, fur storage vault, $38,144.

SHERMAN—Lone Star Gas Co., compressor unit, $271,500.

TEMPLE—Frank Matush, 4th and Central Sts., auto sales and service building.

TYLER—Paul Howard, service station, Bow and Ross Sts.

WACO—Buchanan's Laundry, 418 S. 11th St., addition to laundry.

WACO—Mr. Powell, service station, Dallas Highway and Waco Army Airfield Rd.

WINNIE—McCarthey Oil Gas and Chemical Corp., Sterling Bldg., Houston, chemical or absorption plant, $1,800,000.

VIRGINIA

ARLINGTON — Chesapeake and Potomac Telephone Co., addition to Chestnut dial center, $830,000.

ROANOKE — Noland Co., Inc., warehouse and office buildings, $333,300.

RICHMOND—Carolina Coach Co., Wickham and Northdale Aves., garage and shop building, $55,224.

WINCHESTER—Merrill C. Lee, addition to Bell Telephone building.

WEST VIRGINIA

WEIRTON — Weirton Steel Co., oxygen plant, $4,000,000.

WHEELING—The Wheeling Steel Co., two fuel oil storage tanks at Benwood Works.

Research Man Opposes Large Scale Synthetic Fuel Plants at This Time

The controversy over oil and where more is to come from continued without let-up during the month. For those who favor the swift establishment of a synthetic fuels industry, one man delivered a stiff body blow.

Said Dr. Gustav Egloff, director of research for Universal Oil Products Co. of Chicago., Ill.: "Large-scale plants for producing liquid fuels from coal and oil shale are not justifiable at this time."

Synthetic oil plants, he continued, to produce 2,000,000 barrels of oil daily, as proposed for construction in the next five years, would have an output less than 40 per cent of present daily crude oil production.

Government estimates of the cost, he said, were from $8,000,000,000 to $9,000,000,000, where oil men figured it up to $30,000,000,000.

Before going ahead with plans for synthetic fuel plant construction, Dr. Egloff believed that more information was needed from U. S. Bureau of Mines pilot plants.

He said the two-billion barrel a day Government synthetic oil program would require over 16,000,000 tons of steel, a tonnage that could be used "more profitably by the oil industry."

LETTERS

Sir:

I have just finished reading Mr. Robert Byfield's article and I congratulate you on having such an outstanding feature.

In that connection I believe that you could gain favorable attention for your publication by sending advance proofs of this article to the business editors of our national publications, particularly *Time*, *Newsweek*, *Business Week*, etc. Please don't think me presumptious in making this suggestion. No doubt it has occurred to you as well. In any event, I hope that you will act favorably upon it.

Russell H. Potter, Pres.
Russell H. Potter, Inc.
New York, N. Y.

Sir:

Thank you very much for your letter of the 18th. Yes, I was the pilot of the "Memphis Belle" but I had forgotten that there was anyone who even remembered the "Memphis Belle"—you know those things are hard to remember since those days and particularly what has gone on since.

Thank you for remembering.

Robert K. Morgan, Vice Pres.
Morgan Manufacturing Co., Inc.
Black Mountain, N. C.

Sir:

I have read Robert S. Byfield's "Investment Market Trends," particularly his reference to utilities on page 23, with great interest and satisfaction. I concur heartily in his deductions and his expressions of opinion. It is genuinely inspiring to read such an article in a magazine of the standing and circulation of your excellent "RECORD."

George A. Davis, Pres.
Oklahoma Gas and Electric Co.
Oklahoma City, Okla.

Sir:

I have just read your editorial "Sisters Under the Skin" (MR June '48) and I want to tell you that I think that it is the best article I have ever read on the union question.

You tell the facts as I have thought of them. You express them in no uncertain words.

If every legislator could read that it should convince them of the dangerous situation we are living in, and it should bring serious consideration of amendments to our labor laws.

Art J. Dyer
Nashville Bridge Co.
Nashville, Tenn.

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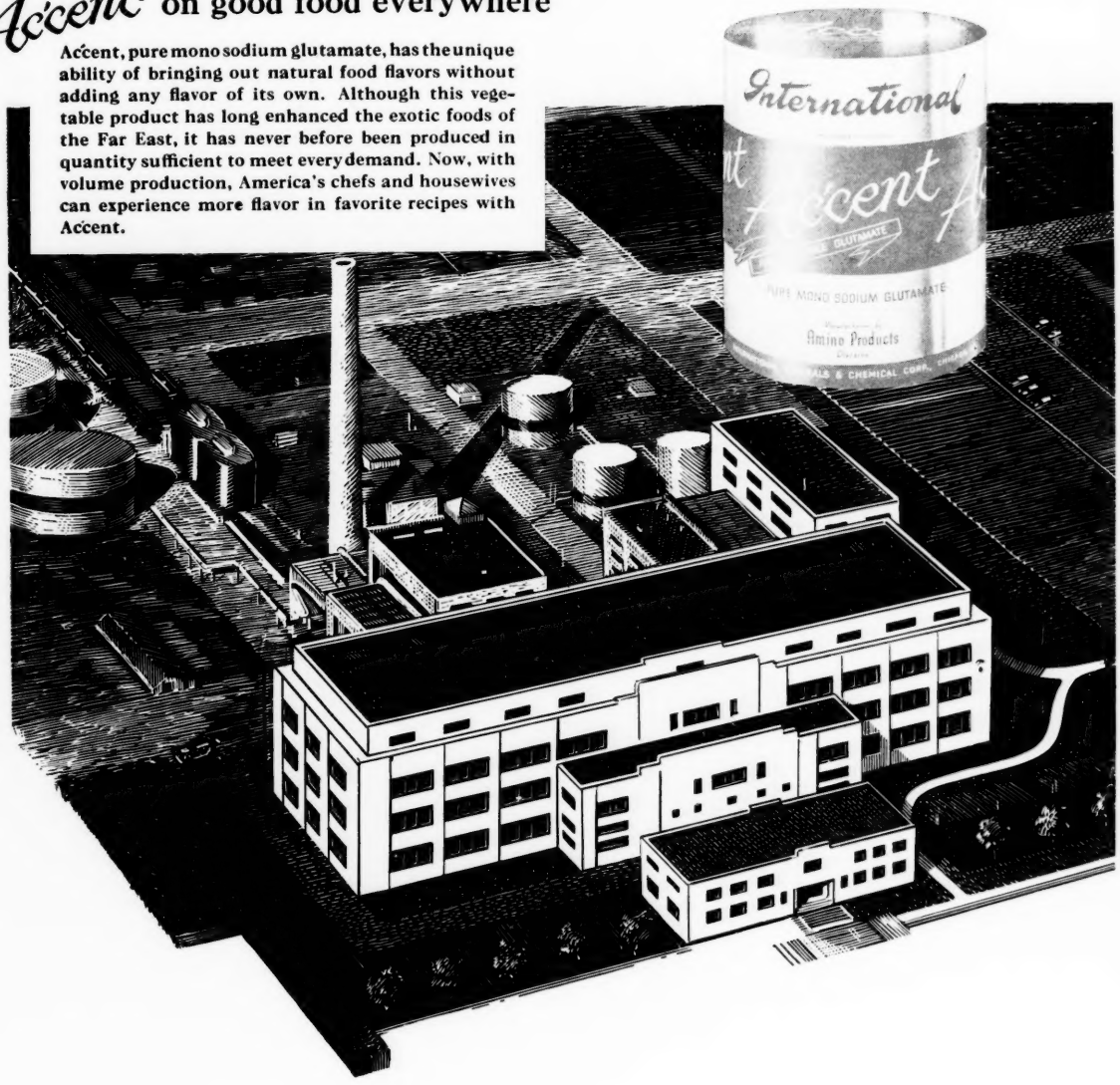


ACCENT ON ENGINEERING

This food processing plant at San Jose, California, having the largest production capacity in the mono sodium glutamate industry, was designed and constructed by Stone & Webster Engineering Corporation for International Minerals & Chemical Corporation.

STONE & WEBSTER ENGINEERING CORPORATION

A SUBSIDIARY OF STONE & WEBSTER, INC.

WASHINGTON REPORT

By Edgar Poe

Greater manpower shortages in certain industries and trades appears certain in the early autumn. Traditionally the South's young men have been among the nation's first to answer the call to arms in a national emergency. At month's end many thousands of youths had queued at recruiting stations from one end of Dixie to the other to enlist for a one-year hitch. Enactment of the draft law had tightened manpower already, and it will be considerably tighter when the new Draft Law becomes operative around October 1.

•

Southern industries generally are prosperous in the last half of 1948 with production going strong, however, Southern congressmen returned to Washington for the extra session saying there is a marked apprehension prevailing among their people. They report that the people are worried over the international situation as well as domestic problames that are cropping up.

•

The "third round" of wages in some of the major industries are expected to bring on higher prices. Now many of the smaller industries are expecting renewed activities for wage boosts. The wage increases are expected to cause greater inflation. Farm income continues upward in the boom, and the government with its subsidies has no intention of letting it drop. President Truman calls for a halt in the inflation, but no one high in the Democratic or Republican ranks are publicly advocating a halt in wages and salaries.

•

Many Southern delegates to the Democratic National Convention are back home publicly advocating that their friends and neighbors aid in a "people's movement" to salvage something of the Democratic Party that Jefferson founded. Senator James O. Eastland summed up what he said was the overwhelming sentiment of the voters of Mississippi: "We feel that the Democratic party that we once knew has been taken over lock, stock and barrel by the so-called liberals, radicals and left-wingers in this country . . ."

•

Gov. Fielding L. Wright of Mississippi, who touched off the Southern revolt with a "State's Rights" movement, said: "We should teach the so-called liberals and radicals a lesson by withholding about 100 electoral votes from Candidate Truman . . . If the Southern people cooperate we have an excellent chance, but I warn this is going to be a long and hard fight . . . The South was insulted at the convention . . . Our delegates (Mississippi withdrew from the convention) are heavy-hearted about the situation. Many others from the South told us they were more wounded than angered by what happened up there."

•

The Democratic platform, hoping to pick up the labor vote in the big industrial regions, nailed a Taft-Hartley law repeal plank to its platform. Labor unions scored this action as the biggest victory since the Republican-controlled Congress passed the law. This law, designed to be fair to both labor and management, was passed over President Truman's veto with the aid of 20 Democratic Senators and 106 Democratic House members. It appears likely they will aid the Republican majority in keeping the statute on the books during the 81st Congress which convenes on January 3.

•

Union labor in the South is making a drive this year to back Congressional candidates that they regard as friendly to labor. In most cases they regard candidates that are up for reelection who voted for the Taft-Hartley law as unfriendly and are de-

Short Shorts: In rapidly growing Houston housing prices have risen more than 30 per cent the past year as compared with about 15 per cent for other large cities. . . . In June 1947 the average Houston house price tag was $6,807; in June 1948, $8,880. . . . A. Lee Wiggins of Hartsville, S. C., has resigned as under secretary of the treasury. An ex-president of the American Bankers' Association, he has been named chairman of the Atlantic Coast Line Railroad. . . . Department of Labor reports that the average hourly earnings in weaving jobs in cotton textile mills currently range from $1.17 to $1.47 among three New England areas and from 99 cents to $1.25 among five Southern areas. . . . Among 13 plant jobs studied, the lowest New England wage average exceeded the highest Southern average of from 4 to 16 cents an hour. . . . Office jobs in the Southern textile industry were found to be about the same as those of New England. . . . Accumulated stocks were held responsible for additional layoffs and fewer hires by Southern tobacco plants the past two months, according to the labor department.

WASHINGTON REPORT

sirious of purging them. Under the Taft-Hartley act, money taken from union treasuries cannot be devoted to a political campaign. Individual contributions from trade union members is permissable, however.

●

Just how many Southern industries and agriculture will seek to get displaced persons under the 1948 displaced persons act to establish homes in their area is not known. Under the two-year program passed by Congress during the closing hours of the regular session, 205,000 displaced persons will be brought to the U. S. Government authorities are presently working out a screening program. Under terms of the bill, at least 30 per cent of the immigrants must be trained agricultural workers. On the other hand, thousands will be skilled workers like machinists and tool makers. To qualify for admission, the displaced persons must have entered the German and Austrian zones before December 22, 1945.

●

A peacetime record, despite the coal strike early this year, is in sight for the steel industry. Some forecasts place the anticipated total at from 84,000,000 to 88,000,000 tons. The wartime record of almost 90,000,000 tons were produced in 1944. There is continued talk among high placed persons in Washington of placing steel allocations on the industry, if defense industries do not get the required steel for meeting their blueprinted outputs.

●

In the past several years a number of Dixie industries have been sharp targets of alleged stream pollution by local and state governments and individuals. Some Legislatures have passed laws requiring that polluted waters be stamped out. In one or two isolated cases, certain industries have threatened to move their plants to another state. Under a law passed by Congress in the closing days of the regular session, the Federal Works Agency and the Federal Security Agency been given authority to aid in cleaning up polluted streams in industrial areas. Although the money has to be appropriated, probably at the next regular session, $100,000,000 is authorized to be made available over a four-year period to local political subdivisions and states for construction of anti-pollution works. Industry, which has already done much research on the pollution problem, will be called on for some contributions to their particular problems.

Some longtime political observers in the nation's capital are now saying that President Truman has picked up some political strength in the Northern states, but they still think Thomas E. Dewey is going to win the presidential election. Many who pooh-poohed the Southern revolt, now say it is more serious to President Truman's candidacy than Henry Wallace and his "New Party." The Southern "State's Rights" Democrats, with Gov. J. Strom Thurmond of South Carolina the presidential "symbol" nominee, will apparently chalk up some electoral college votes in Deep South states.

●

Now that steel industry leaders acknowledge they lost in their bout to stem inflation, the industry is not only restoring price cuts but raising the prices. Meantime, some Southern consumers are seeking information from their Congressmen about freight rates. They are seeking to find out where is the best place to go to buy steel and save freight. With steel scarce, most consumers were buying steel wherever they could get it. There were no bargains left in this industry.

●

Returning in a heavily charged political atmosphere, Congress is in the midst of an extra session, but only time will tell what the results will be. Congressional leaders were hopeful of a short session. Called by President Truman, the session marks one of the first times in many decades when Congress was meeting during a national political campaign. At the outset there was fuming and political fussing from both sides of the aisles.

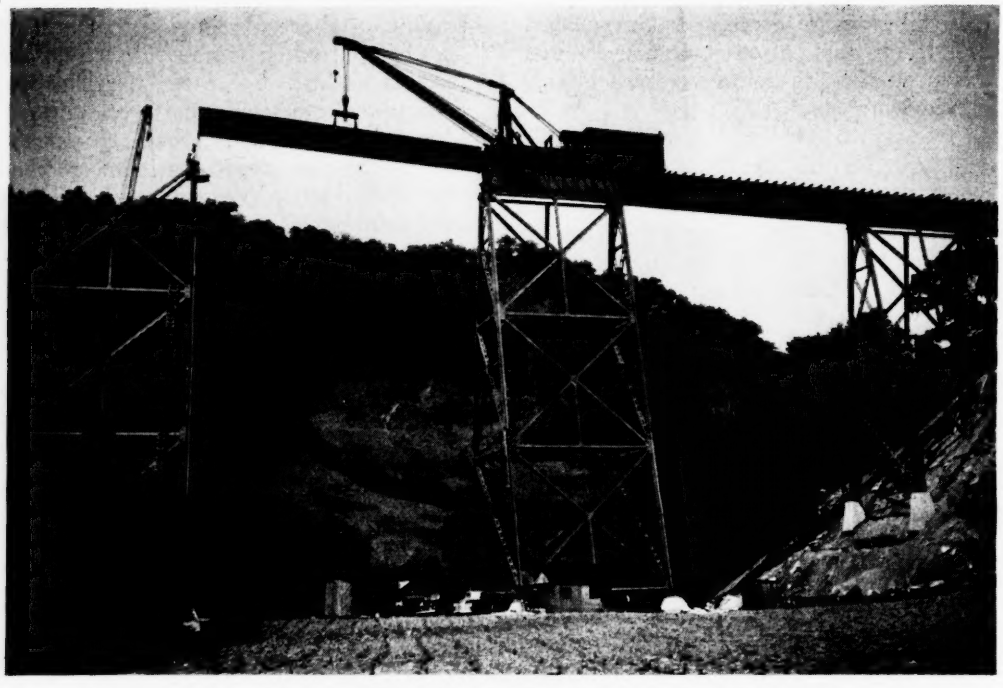
●

Inflation, which evoked a lot of comment in Congress this year and apparently will be an issue in the race for president of the U. S., now appears destined to become a headache for Congress in 1949. The foreign aid and big defense programs are feeding the inflation fires.

●

The coming weeks are expected to be critical over the Russian hold over Berlin, but the higher-ups of our government in Washington assertedly feel that our chances are good that we will not get in a shooting war with Russia—at least this year. But nobody can tell what the Russians will do. Meantime, the U. S. defense program is going ahead perhaps on an accelerated schedule. The stockpiling program of strategic materials is going ahead reportedly on schedule.

WHERE ADEQUATE ERECTION EQUIPMENT REALLY COUNTS



One of two new 700' steel viaducts on the C&O Rwy. near Wayland, Ky., highest on the line and one of the highest railroad bridges in the East. The derrick car is the largest of its type in the country of which we have knowledge.

Keeping step with the modern trend toward the use of longer and heavier plate girder bridge construction, Virginia Bridge designed and built the Diesel-operated derrick car shown in this illustration capable of handling 60-tons at a radius of 60-ft.

Operating without the use of a counterweight car this strong-arm giant is pictured here 170-ft. above ground gently lifting a 100-ft. 35-ton steel girder in place on one of the two new C&O Railway 700-ft. viaducts near Wayland, Ky. Using a counterweight car much longer and heavier girders can be handled with important savings in time and costs.

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UNITED STATES STEEL

Investment Market Trends

By Robert S. Byfield

Financial Editor

WHEN almost 43,000,000 shares were traded on the New York Stock Exchange in May of this year some incipient Jeremiahs, among them a few editorial writers of metropolitan dailies, raised an admonitory pen. Their theme was one of warning that the national attitude toward speculation being what it was, things at the corner of Wall and New Streets had better not get out of hand. In our opinion their fears along these lines are based on a very popular and common statistical fallacy,—the misinterpretation of the absolute for the relative. Now 43,000,000 shares represent a fairish volume in a single month when one considers the extreme sluggishness of turnover on the Stock Exchange in recent years. Yet over 51,000,000 shares were traded in January 1946 and 40 to 50 million share months were quite common prior to 1940.

Trading Activity Gauged

It is by the ratio of trading volume to total shares listed that one must gauge trading activity, not in the mere number of shares traded. In the June, 1948, issue of *The Exchange*, monthly publication of the New York Stock Exchange, attention is called to the significance of the reported turnover of 3,054,000 shares on May 17. Since there were 1,938,000,000 shares listed on May 1, the turnover on that day represented only 0.16% of the total. But let us compare this with a few 3,000,000 share days of the past:

Date	*Number of shares listed (Millions)*	*Ratio to total shares*
Nov. 10, 1925	479	0.71%
Aug. 1, 1929	971	0.34%
Nov. 4, 1936	1,349	0.24%

Trading Not Abnormal

Considering the much greater number of shares listed, a 3,000,000 share day in 1948 is well within the range of normality and hardly could be characterized as representing feverish speculation. In fact, the long term statistical record of the annual volume of transactions on the New York Stock Exchange indicates most strikingly the intermittent stagnation in trading since 1930. Some pertinent data bearing on this contention appears in the table below.

Trading Volume and Listings

Since the first decade of this century the number of shares listed has increased over ten fold, but the ratio of trading volume to this figure has decreased almost as much. In the 1900-1910 period average annual trading was not far from 200,000,000 shares per annum compared with a corresponding figure of about 260,000,000 shares in the 1938-1948 period. This gain of only 30% is actually less than the population growth which was over 50%. When one takes into consideration the increase in national wealth and income between the two periods one has a more accurate yardstick with which to measure the fantastic stagnation now gripping the major stock exchanges of the nation. Gross National Product in 1910 is estimated at around $37 billions at then current prices and perhaps $70 billions at 1944 prices according to a recent survey made by the Twentieth Century Fund. Since 1944 the corresponding figure has risen to over $200 billions and according to U. S. Department of Commerce estimates is running presently at a $240 billion rate. Confirmation of this spectacular growth may be found in almost every field of national statistics. Steel production has more than doubled since 1910, the value of all manufactured products quadrupled and the output of electric energy has grown 8 or 9 times. Only the pace of trading on the stock exchanges preserves its horse and buggy characteristics.

Sluggishness Is Understandable

There is little mystery about all this. Changed investor psychology and very high taxes, together with stringent Federal regulatory legislation particularly with respect to manipulation and utilization of credit have placed trading on an investment and virtually on a cash basis. With the regulations now in force and margins restricted to a 75% basis there are no other reasonable measures for further control which could be placed into operation short of closing down the exchanges as the Laborites did with respect to the Liverpool Cotton Exchange. If our reasoning is correct then trading volume, barring some new national emergency, should have reached its low ebb in the past ten years and should henceforth begin to reflect the steady growth in number of shares listed.

Predictions Must Be General

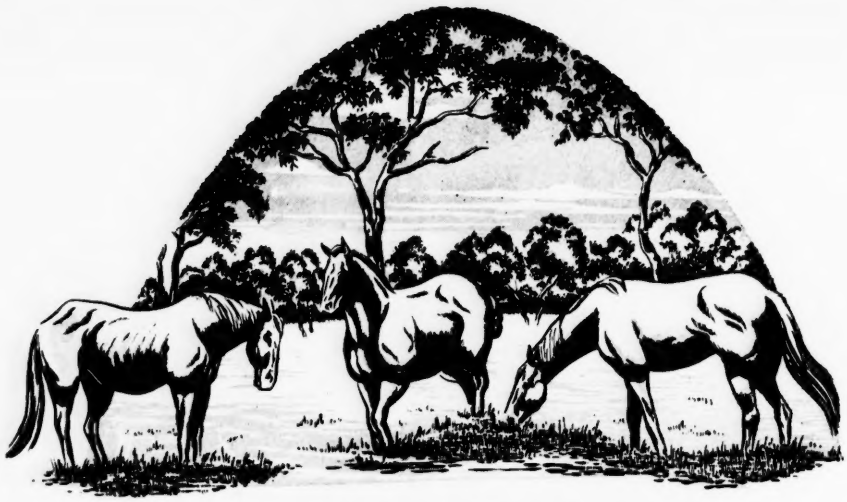
It would, however be

(*Continued on page 64*)

RATIO OF TRADING VOLUME TO SHARES LISTED—1910 - 1948*

Year	*Number of issues listed*	*Number of shares listed (Millions)*	*Volume of trading for year (Millions)*	*Ratio of trading volume to shares listed (%)*	*Population of U. S. (Millions)*
1910	426	117	161	127	92
1915	511	158	172	111	99
1920	691	220	227	91	107
1925	927	433	459	99	115
1930	1293	1127	810	67	123
1935	1187	1305	381	29	127
1940	1233	1435	207	14	132
1945	1256	1495	377	25	139
1947	1334	1771	253	14	143
1948*	1402	1962	...	..	145

*June 1st



WHAT IS THE "HORSEPOWER" OF A WOOD PRESERVATIVE?

AS EVERY ENGINEER KNOWS, a "horsepower" is not the varying strength of a species of four-legged animal, but an accurately and positively defined flow of energy in terms of foot-pounds and seconds. The buyer of power, whether steam, electric or in other forms, knows exactly what he is getting, exactly what work will be performed for his money. Such definite, measurable specification is a necessity in modern engineering practice.

Sound business management demands that, wherever possible, the performance of machines and materials be accurately predetermined. That's why Chapman Penta Preservative is meeting with ever-growing favor among those who buy or specify poles, cross-arms or any timber which should be protected against decay and insects.

The active ingredient of Chapman Penta Preservative is pentachlorophenol. That's a definite, unchanging chemical substance which can be identified and measured in any chemical laboratory. Its protective qualities are known—proved by ample tests in controlled experiment as well as actual use over the years. Pentachlorophenol is the same yesterday, today or tomorrow. It's as definite a chemical entity as hydrogen or oxygen.

Penta Preservative, used in conventional pressure treatment with regular equipment, provides maximum protection for any wood product. The treated wood is clean, odorless and seldom irritating to human hands. Workmen do not object to handling Penta treated wood. Yet the protection value is there, and can be proved and measured at will.

For the whole interesting story of Chapman Penta Preservative and its application to your wood-protection problems, call or write any of our offices.

CHAPMAN PENTA PRESERVATIVE

containing pentachlorophenol, product of The Dow Chemical Company

CHAPMAN CHEMICAL COMPANY ★ Dermon Building, Memphis 3, Tennessee

LITTLE GRAINS OF SAND

"Little drops of water, little grains of sand,
Make the mighty ocean, and the pleasant land."

Fallacious Reasoning. Without fully realizing it, too many of our people in and out of office have come to think that because the country is going to pour out many billions on military security and world reconstruction it is useless even to try to shrink the federal budget. The fact is that so far from excusing Congress and the next President from that tough assignment, these two spending programs only add weight to the responsibility upon them to reduce, eliminate and postpone expenditures that are not absolutely essential.

Equipment Replacement. Few reforms in the tax law will do so much to promote the national welfare, at so small a sacrifice in revenue to the Treasury, as authorization of more rapid depreciation of industrial equipment. Despite the prime position held by American industry in the world today, a surprisingly large percentage of our industrial equipment is obsolescent, judged by the best that is available. Restrictions on depreciation deductions have discouraged replacements. They will continue to do so in the future, unless Congress takes early action to correct this unsound feature of the tax law by permitting business to write off fixed assets over a much shorter period.

Price controls broke down before Congress abolished the OPA in 1946. No government short of dictatorship could enforce them if reimposed now.

Political Mediation. A logical inference from the coal mine settlement is that the government's intervention in a wage dispute lends strength to the negotiators for a union—and this without reference to whether the union is or is not a monopoly. Doubtless "mediation" acts more powerfully in that fashion in a campaign year than ordinarily, but it always and inevitably mixes politics with business. Another inference from this and other recent labor developments is that the delaying or breathing spell provisions of the Taft-Hartley law are of doubtful practical value. It is obvious that the coal mine operators had to agree to the substance of Lewis' terms or have a country-wide strike on their hands.

Record Expansion. Manufacturing and mining industries as a whole plan to spend $8,450,000,000 on new plants and equipment this year, according to the Office of Business Economics, Department of Commerce, or 3.7 per cent more than last year. This total includes the iron and steel companies. Planned expenditures of the latter group alone, however, are nearly 14 per cent greater than last year. The total of $565,000,000 in 1948 for iron and steel, as now planned, will easily establish a new record.

Field For Investment. During the first quarter of 1948, the South's chemical industry produced a variety of products valued at close to $1 billion. This figure ($941 million) is $90 million higher than the value of production over the same period one year ago, and for the most part, represents an increase in physical production due to the fact that inflation in chemical prices between the two periods amounted to no more than 5 per cent. Although the financing of a chemical plant is an expensive, big business proposition, the margin of profit for the industry as a whole is well above the average. This is especially true in the field of consumer chemical products, where the output is way below the requirements of the region.

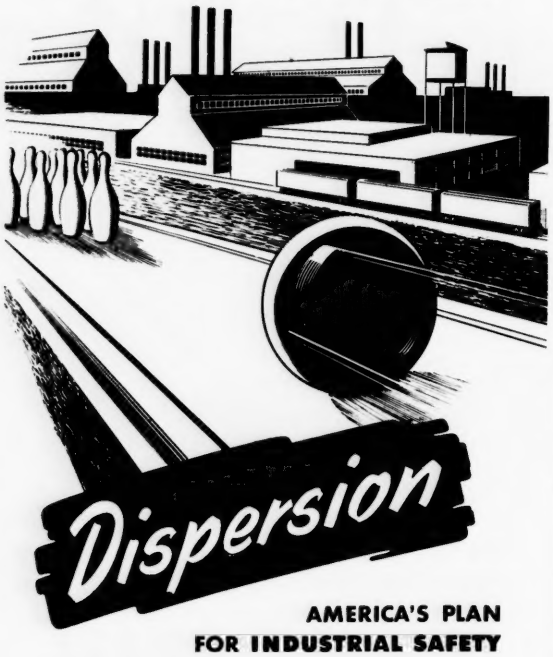
Third Round Result. During July leading steel companies advanced wages about 9 per cent. This was the first time since the steelmakers have dealt with the unions that the increase has been on a percentage, rather than a straight across the board, basis. Hourly increases ranged from 9½ cents for common labor to 25 cents for the highest paid skilled employees. The average increase was about 13 cents per hour. These latest advances in the steel industry lift the wage for common labor to $1.85 per hour and the average to above $1.70.

Unfair Competition. The government owned and operated Federal Barge Line, competing with private transportation through the operation of barge service on the Mississippi, Missouri and Warrior rivers, showed a deficit figure of $2,127,548 in net income before fixed charges for the year 1947. Despite a similar loss—$2,541,972 in 1946—making a total of $4,669,520 which taxpayers must provide, the Congress recently passed, and the President has approved, an appropriation of $2 million for new equipment for this unprofitable government subsidized transportation agency.

Corporate Charity. Corporations in the 19th century were supposed to be soulless affairs incapable

(Continued on page 26)

LIKE Pins IN AN ALLEY



Dispersion

AMERICA'S PLAN
FOR INDUSTRIAL SAFETY

MISSISSIPPI

Offers Industry Room for

★ PROFITABLE PEACETIME PRODUCTION

★ MAXIMUM WARTIME PROTECTION

America's future safety depends upon the security of its industrial machinery. In Mississippi industry has room to expand and grow with confidence. Mississippi's friendly communities offer ideal plant sites away from the congested "area targets." Two of Mississippi's major resources are vital assets to industry in both peace and war:

- Access to the world's largest fuel and energy reserves.
- A reservoir of intelligent rural labor, willing and able to work.

For specific information concerning your requirements write:

MISSISSIPPI AGRICULTURAL & INDUSTRIAL BOARD
New Capitol Building—Jackson, Mississippi
New York Office: 1001 Two Rector Street

LITTLE GRAINS OF SAND

(*Continued from page* 25)

of charitable impulses. It is still perhaps good textbook law that corporations have no right to give away the stockholders' money. But fifty or seventy-five years ago business was, except for railroads, a matter of relatively small units and the owners were free to do with the profits what they liked.

Now the great corporations have taken the place of the individual as custodians of that wealth which ever since Old Ttestament times has been deemed to carry with it some degree of charitable obligation. The stockholders of these corporations are said to be the owners of the business. But what they own, realistically, is a piece of paper which indicates that they are entitled to a minute fraction—of what? Not of the property itself, not even of its profits, but of so much of the profits as a board of directors thinks it prudent to let the stockholders have. And it is not considered financially respectable to let them have anything like all the profits. The remainder is "plowed back" into the business.

Product Distribution. A nation-wide survey of high prices, based on increased production and transportation costs, will be undertaken by the distribution committee of The American Society of Mechanical Engineers, it was announced by Fenton B. Turck, chairman of that committee. Describing the distribution of industrial production as "now America's primary domestic problem," Mr. Turck said his committee would be solely concerned with the assembly of factual material on the subject and invites the cooperation of qualified companies and organizations. The survey is scheduled for completion this year, and will be available on request.

Not Profiteers. The boost in steel prices, averaging close to 11 per cent, exceeded general expectations. But proof of the conservative price policies followed by the steel industry is to be found in the fact that since September 1939—when the shooting started in Europe—the general price level, as measured by the weekly commodity index computed by *The Journal of Commerce*, has advanced roughly 135 per cent. During the same period, this paper's iron and steel price index has advanced roughly 60 per cent, including the July boost.

Making More Jobs. The giant celanese plant being built near Charlotte, N. C., is being erected and equipped at a cost of $40,000,000, and will have approximately 5,000 persons on its payroll. It is a matter of simple arithmetic to deduce the fact that the investment in the plant equals $8,000 for each job it is expected to provide. In the face of some labor unions' complaining about industry's growing fat on excessive profits it is well for the person whose job is born of the investment dollar to bear in mind

(*Continued on page* 28)

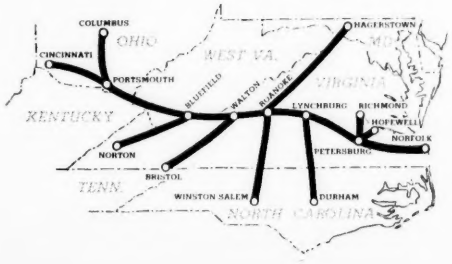
You are too!

(If you have *his* reputation)

Busy as a bee? Certainly you are — and much more! So is our railroad — and we like it!

But being that busy doesn't just happen. It takes the confidence of your patrons to build volume business . . . and it takes modern equipment and sound operating methods to produce and give the kind of service which gets and holds that confidence. The Norfolk and Western *is* busy and *stays* busy providing Precision Transportation to gain and keep *your* confidence.

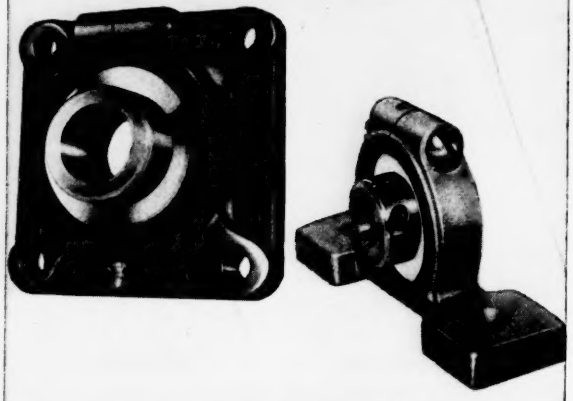
Discuss your shipping problems with a Norfolk and Western freight representative. *He talks your language,* understands your shipping problems, and knows what his railroad can do. N. & W. representatives are located in principal cities throughout the United States. Call on them — their job is to *stay busy* helping you!



Norfolk and Western RAILWAY

PRECISION TRANSPORTATION

ANTI-FRICTION
SELF-ALIGNING, BALL BEARING
PILLOW BLOCKS
AND
FLANGE UNITS
HAVE THESE
OUTSTANDING ENGINEERING ADVANTAGES



★ **HONED RACEWAY DEEP GROOVED BALL BEARINGS**—eliminate noise and chatter although excessive high speed is attained.

★ **LIGHT WEIGHT AND STREAMLINED**—high tensile strength aluminum alloy incorporates necessary strength with a great reduction in weight. Has a 30% greater carrying capacity than the ordinary ball bearing.

★ **SELF-LOCKING DEVICE**—assures permanent stability of the ball bearing itself. Eliminates possibility of it becoming loose within the housing.

★ **SELF-ALIGNING**—bearing will always be in perfect alignment with the shaft, regardless of irregularities of base on which it is mounted. This eliminates bearing strain or friction.

★ **ADAPTER BUSHINGS**—lock to shaft with two set screws, making each basic pillow block accommodate several different sized shaft diameters.

★ **RANGE OF SIZE AND STYLES**—adaptable for any industrial use for both Normal and Heavy Duty.

Let us know your requirements. We'll take care of any replacements or additions to original equipment promptly.

THE SLAYSMAN CO.
Established 1885 • Incorporated 1937
East Coast Warehouse Distributors of
ANTI-FRICTION Ball Bearing Pillow Blocks and Flange Units
801-813 E. PRATT STREET
BALTIMORE 2, MARYLAND
Engineers • Manufacturers of Industrial Gears • Machinists

LITTLE GRAINS OF SAND

(*Continued from page* 26)

the function of profits in providing new capital for creating more jobs and goods.

Postwar Advances. In the gains made since 1924-27 only four of eighteen groups of nonmanufacturing labor had gains in real hourly wages exceeding those of manufacturing labor. These were bituminous coal miners, workers in hotels and in quarrying and nonmetallic mining, and common labor in road-building. The hourly earnings of manufacturing labor outrank all other elements of the price structure. Per capita weekly earnings of workers in manufacturing industries, like farm prices, made high gains. Wholesale prices made middling gains. Rents, industrial stock prices and the consumer price index show the lowest advances over the long period. These facts are presented in a study, "The Structure of Postwar Prices," by Dr. Frederick C. Mills, member of the research staff of the National Bureau and Professor of Economics at Columbia University, and former President of the American Economic Association and of the American Statistical Association.

Mortgage Expansion. The New York *Times* quotes the Federal Reserve Board as calling attention, on July 22, to the dangers inherent in the rapid increase of mortgage debt and disclosing that during the last 2½ years $25 billion of home mortgage loans had been made, increasing the amount of such debt outstanding to a record level of almost $33 billion in June. The Board also was quoted as saying that further expansion of mortgage credit, whether guaranteed by the government or not, would add to the already excessive demand for housing and to pressures for rising prices. It said that FHA insured loans for one-to-four-family houses now exceed $4 billion and that VA insured loans come to $6.5 billion.

International Necessity No. 1. When we think of the enormous usage of raw materials during two world wars and the continued demand for rehabilitation of ravaged countries throughout the world, we believe there was a real point made during a recent conversation between two darkies who were discussing what is wrong with the world.

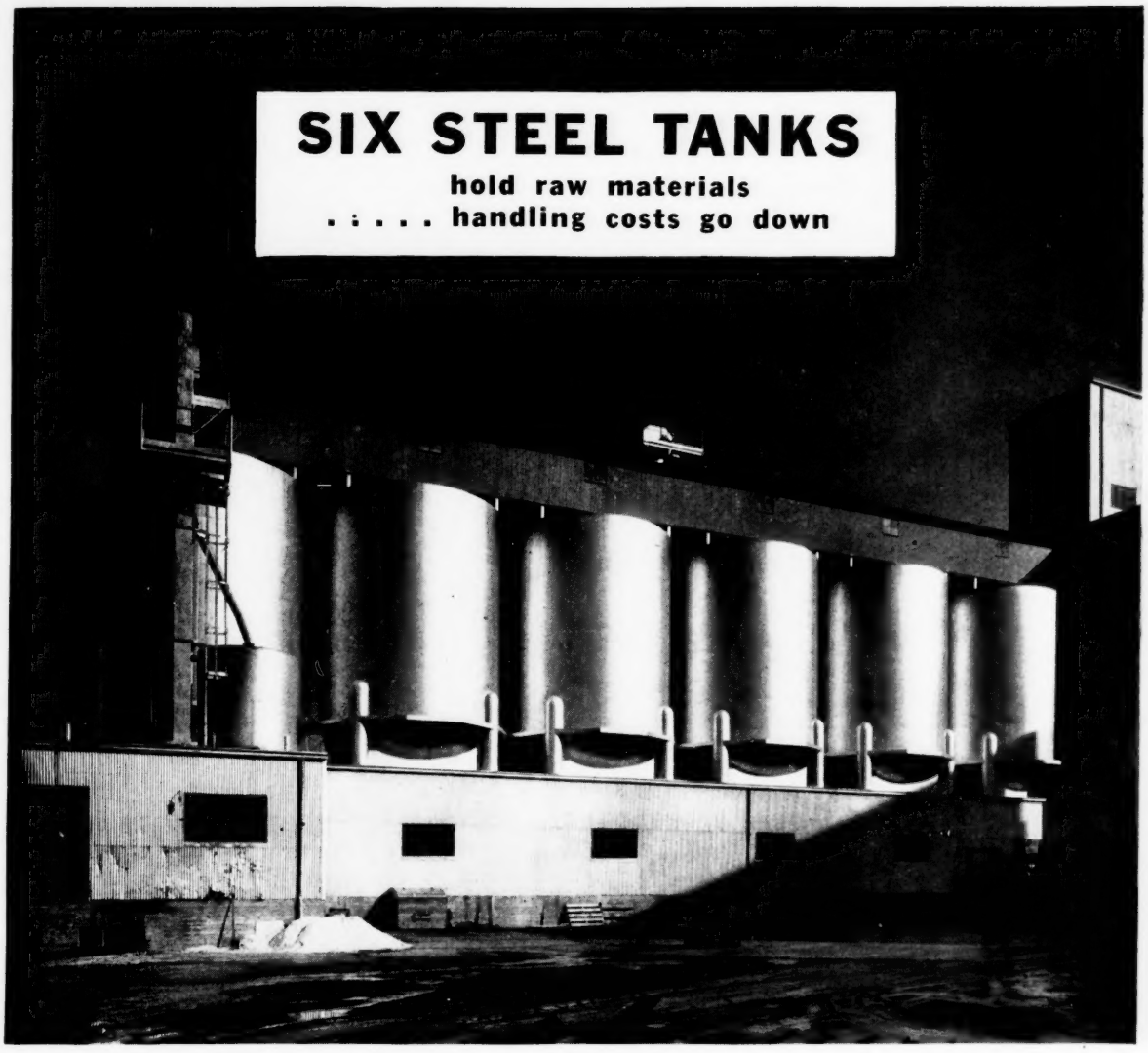
"I know what's wrong," said one of them. "There just ain't enough money in the world."

"Oh, no," said the other, "that's not what's wrong. There's plenty of money. I was down in the basement of the bank today helping Mr. Johnson, and he showed me a room full of money, piled on the floor and stacked up against the walls. I asked him could I get some of that money, and he said, 'Sure you can, Sam, if you can put up some collateral,' but I didn't have any collateral and I couldn't get any of the money—and that's what's wrong with the world, there just ain't enough collateral."

—THURMAN SENSING, *Sugar Coated Pills*

SIX STEEL TANKS

hold raw materials
. . . . . handling costs go down



THE welded steel tanks shown above are a major part of a carefully planned system designed to handle raw materials used in the production of glass at the Glass Containers, Inc., plant at Antioch, California. The tanks, which are 24 ft. in diam. by 28 ft. 6 in. high, store silica sand, limestone, soda ash, fluorspar, and cullet. Three of the tanks are partitioned since the quantities of some of the raw materials used are not large enough to warrant the use of an entire tank.

In the operation of the system, a vertical bucket-type elevator conveys the raw materials from the unloading platform to a shuttle-type conveyor over the tanks and fills them from the top. Six automatic scales are located beneath the tanks. These scales are loaded through automatic gates and the materials are automatically weighed onto a conveyor belt which moves them to a skip hoist. The hoist lifts the materials to a mixer on the fifth floor of the batch house (the tall structure shown at the right above).

Special steel plate structures often play important parts in economical and efficient plant operation. We are equipped to design, fabricate, and erect all types of steel plate work. For full information and estimating figures, write our nearest office.

CHICAGO BRIDGE & IRON COMPANY

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Tulsa 3 .....1611 Hunt Building
New York 6 .....3313—165 Broadway Building
Cleveland 15 .....2216 Guildhall Building
Chicago 4 .....2106 McCormick Building
San Francisco 11 .....1240-22 Battery Street Building
Philadelphia 3 .....1619—1700 Walnut Street Building
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Havana .....402 Abreu Building
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Plants in BIRMINGHAM, CHICAGO, SALT LAKE CITY and GREENVILLE, PENNSYLVANIA

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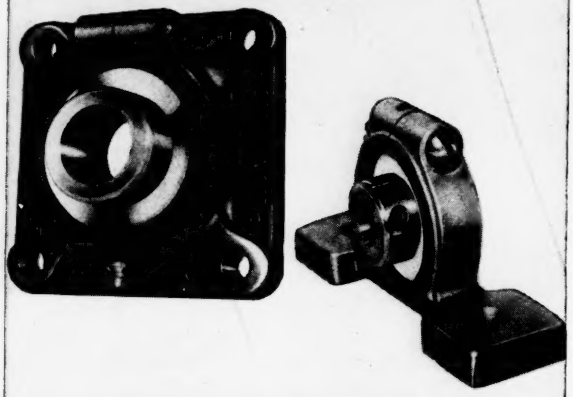

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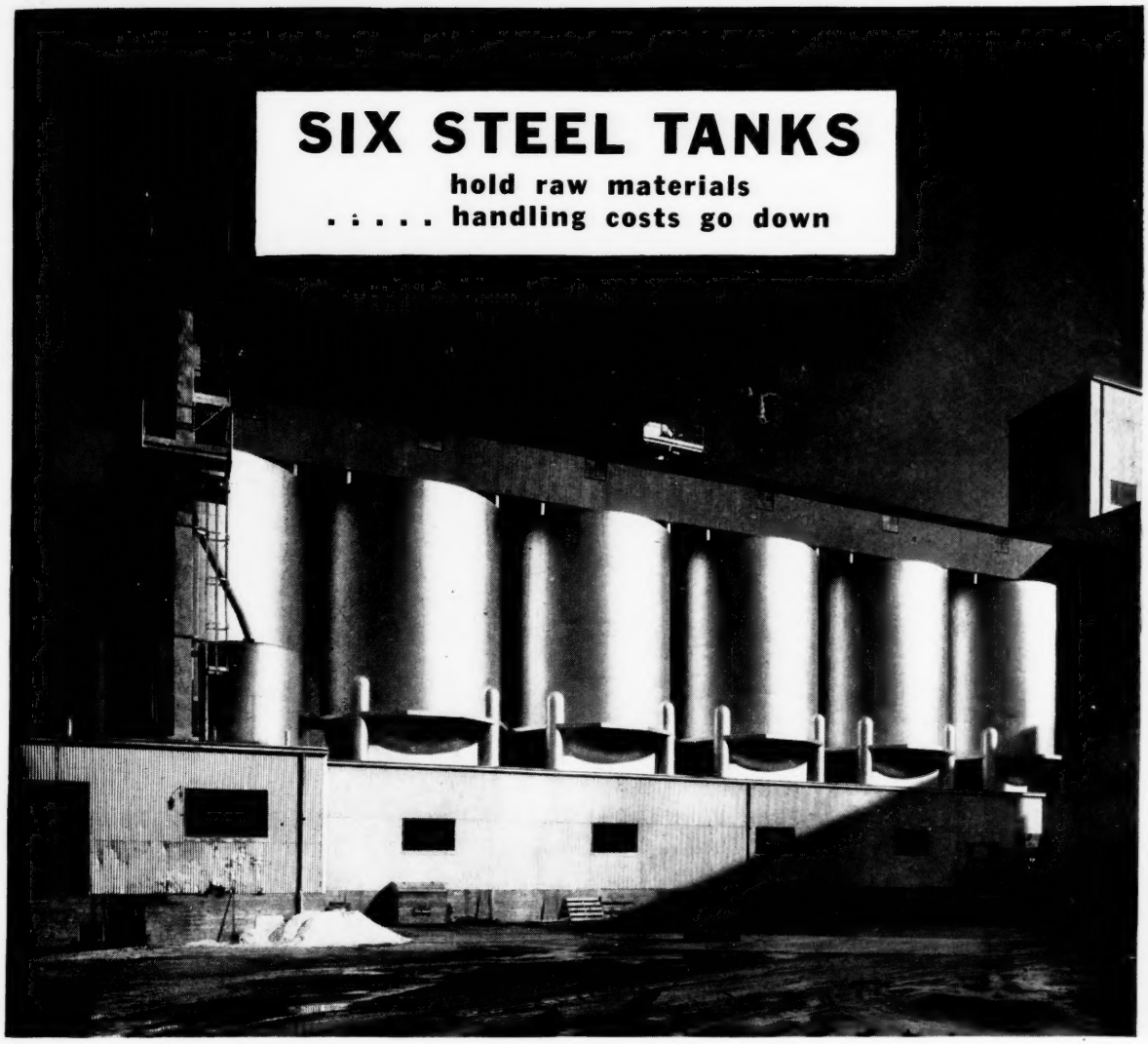

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Plants in BIRMINGHAM, CHICAGO, SALT LAKE CITY and GREENVILLE, PENNSYLVANIA

We're planting a forest to help make steel!

U·S·S STEEL PRODUCTS MADE OR DISTRIBUTED BY T.C.I. INCLUDE:

- Rolled, forged and drawn steel products.
- Structural shapes, plates, bars, small shapes, agricultural shapes, tool steel, strip, floor plate, cotton ties.
- Steel sheet piling and H-bearing piles, bridge flooring.
- Concrete reinforcing bars, reinforcing mesh.
- Black, galvanized and special finish sheets.
- Wire and wire products, including woven wire fencing, barbed wire, bale ties, nails.
- Electrical wires and cables, wire rope, strand.
- Rails, track accessories, wheels, axles, forgings.
- U·S·S High Strength Steels and U·S·S Abrasion-Resisting Steels.
- U·S·S Stainless Steel.
- Ground Open Hearth Basic Slag.

In recent years the T.C.I. Fairfield steel mill was threatened with a vanishing water supply and the ruinous economic consequences of such a condition. Erosion was washing soil into Bayview Reservoir, reducing the capacity of the basin and threatening eventually to fill it beyond the point of usefulness.

To save this source of water which keeps the mill and the employees working, T.C.I. has undertaken to plant 1,500,000 pine trees on the hills surrounding the reservoir. Over 585,000 trees have been planted to date and the remedy is already proving extremely effective. Serious soil erosion has been checked.

A "by-product bonus" of this soil conservation project is this: after 15 years growth, a thinning and selective cutting program will supply timber for coal mine props, thereby conserving the fast waning timber supply in the Birmingham District.

For many years the Tennessee Coal, Iron & Railroad Company has been promoting modern methods of conservation to save valuable top soil and preserve the fertility and beauty of the South. While the Forestry Division practices the latest approved conservation methods in their timberlands, the T.C.I. Farm Products Division, in cooperation with the agricultural agencies, helps southern farmers improve their farms and increase crop yields. That was the aim behind the production of *Soil and the South*, T.C.I.'s color movie which makes a vivid presentation of the methods of fighting soil erosion and increasing productivity on southern farms.

The success of this forestry project at the T.C.I. Fairfield Mill is another example of how soil conservation can help industry, and how both together can contribute to a more beautiful, more productive, more prosperous South.

TENNESSEE COAL, IRON AND RAILROAD COMPANY

GENERAL OFFICES: BIRMINGHAM, ALABAMA

DISTRICT OFFICES: BIRMINGHAM · CHARLOTTE · HOUSTON · JACKSONVILLE · MEMPHIS · NEW ORLEANS · TULSA

UNITED STATES STEEL EXPORT COMPANY, NEW YORK

UNITED STATES STEEL

Yoloy revolutionizes truck body design

THE Standardization Committee of the Coca Cola Bottling Company has designed the new Protectobody shown in this photograph. The design takes full advantage of the extra toughness of Yoloy--Youngstown's high strength, low-alloy, nickel-copper steel. The entire payload is suspended from light longitudinal roof members of Yoloy, thereby eliminating the usual chassis sills and cross pieces and effecting a very low loading height.

Second, use of Yoloy framing permitted the addition of body insulation and suitable covers, without increasing over-all body weight. Covers are spring balanced on Yoloy lifting arms and are raised and lowered with almost no effort. In addition to its weight-saving value, Yoloy's high resistance to shock, impact, abrasion and corrosion contribute to increased body life.

Similar benefits from the use of Yoloy may be realized by other manufacturers of transportation equipment. Our district sales office will be glad to discuss the use of Yoloy in your products.

QUALITY V YOUNGSTOWN SERVICE

Youngstown
YOLOY STEEL

THE YOUNGSTOWN SHEET AND TUBE COMPANY

Manufacturers of Carbon, Alloy and Yoloy Steel

General Offices — Youngstown 1, Ohio

Export Office - 500 Fifth Avenue, New York

COLD FINISHED CARBON AND ALLOY BARS - SHEETS - PLATES - WIRE - TIE PLATES AND SPIKES - ELECTROLYTIC TIN PLATE - COKE TIN PLATE - PIPE AND TUBULAR PRODUCTS - CONDUIT - BARS - RODS.

The Bucket Test Proves

AKLO *Industrial* GLASS *Keeps Interiors* COOLER

WITH FAMOUS
GLASS
PRODUCTS BY
LIBBEY-OWENS-FORD

AKLO GLASS
Absorbs heat and reduces glare

TUF-FLEX GLASS
Resists physical and heat shock

THERMOPANE GLASS
Insulates heat and sound

POLISHED PLATE GLASS
Clearest vision with finest surface

TOBEX GLASS
Diffuses light evenly

PATTERN GLASS
Wide variety for windows and partitions

By

OWENS-ILLINOIS

INSULUX GLASS BLOCK
Provides light, privacy and insulation

Prove to yourself that AKLO Glass absorbs heat . . . making interiors cooler. Fill two buckets with water and set side by side when the sun is directly overhead. Cover one bucket with a sheet of ordinary glass. Cover the other with a sheet of Blue Ridge Aklo Glass. After several hours take the temperature of the water in each bucket. The water under Aklo Glass will be many degrees cooler because Aklo keeps out the sun's heat.

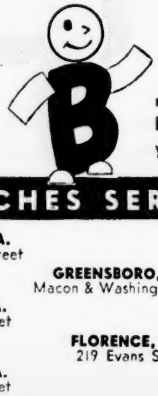
You get the same results when you install Aklo Glass in your plant or factory windows . . . a reduction in temperature and maintenance of much cooler atmosphere with resulting INCREASE IN PRODUCTION.

Equip your plant with Heat-absorbing Blue Ridge Aklo Glass from Binswanger . . . a firm with 75 years of experience and "know-how" in plant repair and modernization. Write today for your FREE sample of AKLO and make the Bucket Test right away.

FOUNDED 1872

BINSWANGER & Co.

INCORPORATED



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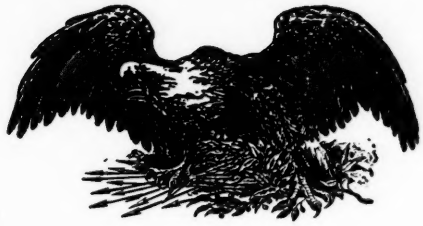


"What Enriches the South Enriches the Nation"

Green Pastures

A friend of ours engaged in manufacturing in the South is becoming unduly alarmed. He told us recently that various factors "are fast making it more difficult to sell in northern markets. If this trend continues, we will have to advertise in the South for business next year."

There is no need for the pessimism reflected by these words.

From its inception the MANUFACTURERS RECORD has urged that manufacturing industries be established in the South. It has pointed out that these industries should not be concentrated in one field. It has advocated far-sighted planning which would integrate production from the first processing of raw materials to the manufacture of finished articles, since there are many localities in the South where this is not only feasible but markedly profitable from the standpoint of low-cost production.

Three facts substantiate the RECORD's long and sound campaign. The first is that the South has varied and abundant raw materials—so varied and abundant, indeed, that the region has a running start in the profitable production of most of the articles that appear in the American markets. These raw materials and their development constitute this country's foremost economic frontier.

The second fact is the sterling quality of the South's labor force. The distorted view disseminated by well-meaning but misinformed men of letters and ill-meaning and uninformed New Deal economists is completely shattered by the Southern production record in such divergent industries as textiles, tobacco, furniture, chemicals, petroleum products and atomic energy. That production record was not compiled by Jeeter Lester and his ilk.

Nor should it be assumed that these are the only industries in the South. They are merely the ones in which our region shows its heels to the rest of the nation in the competitive race. To mention a few in which the South need take a back seat to no one, there are the production of food, paper, clothing, stone, clay and glassware. Almost daily other industries are joining the ranks of those so well established.

The third fact contributing to the demand for Southern industrial expansion is the most important of all—the vast Southern market for manufactured goods. In any business, anywhere, the market is the all-powerful consideration. Profit may be the goal of free enterprise, but profit is impossible without a suitable market for goods and services.

The markets of the South are expanding at a greater rate than those of the rest of the nation because of the South's rapid growth of population and new enterprise. This will unquestionably benefit the Southern manufacturer in two ways. First, he will not have to high-pressure the South into buying his goods; the South is willing and eager to purchase the output of reputable industry. Second, he will have a great competitive advantage over manufacturers outside his region because he can cut his transportation costs *by selling close to home.*

There is an old saying to the effect that the grass is always greener in the other fellow's yard. Through long habit the pastures of northern markets have come to look greener than those of the South. It is doubtful if this was ever actually true; it certainly is not true now.

Southern manufacturers should give thoughtful attention to known and clearly discernible facts. They are to be read in the figures turned out by statistical agencies. They are to be read in the sales budgets of northern manufacturers and distributors who eye the South ever more avidly with the passage of time. They are to be read right at home in the buzzing activity of Southern markets of all kinds.

The most profitable outlet for Southern merchandise is the South itself.

Bureaucracy Rampant

Harry F. Byrd,
United States Senator from Virginia.

The number of civilian employeees on the federal payrolls has been increasing at an average of nearly 500 a day since January.

The total in May 1948 was 2,066,285.

This number is more than twice the World War I peak.

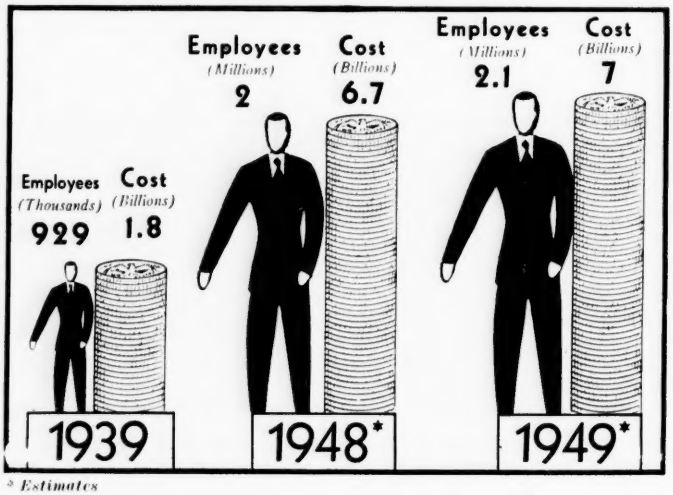
It is more than three and a half times the level at the end of the last previous Republican Congress and Administration.

It is more than twice the peak prior to the war emergency in 1939.

In the civilian agencies, exclusive of the Military Establishment, civilian employment is now more than 80,000 greater than it was at the World War II peak, and more than 165 per cent of the peak prior to the war emergency in 1939.

The Military Establishment is employing three times as many civilians per man in uniform as it was at the World War II peak.

Federal Personnel Costs . . .



* *Estimates*

Estimate for fiscal '49 . . .

Agencies had funds for total average employment of 2,012,000 employees in fiscal year 1948.

The 1948 average will be exceeded by at least a hundred thousand in fiscal year 1949. At peaks upward of 2¼ million employees may be on the federal payrolls.

At average pay of $3,340 per employee, payroll expenditures will exceed $7 billion in the coming year.

These personnel and cost figures compare with the prewar emergency situation as follows: Total personnel in that year averaged 925,000; average pay was $2,000 per employee; annual payroll costs totaled less than $2 billion.

Observations . . .

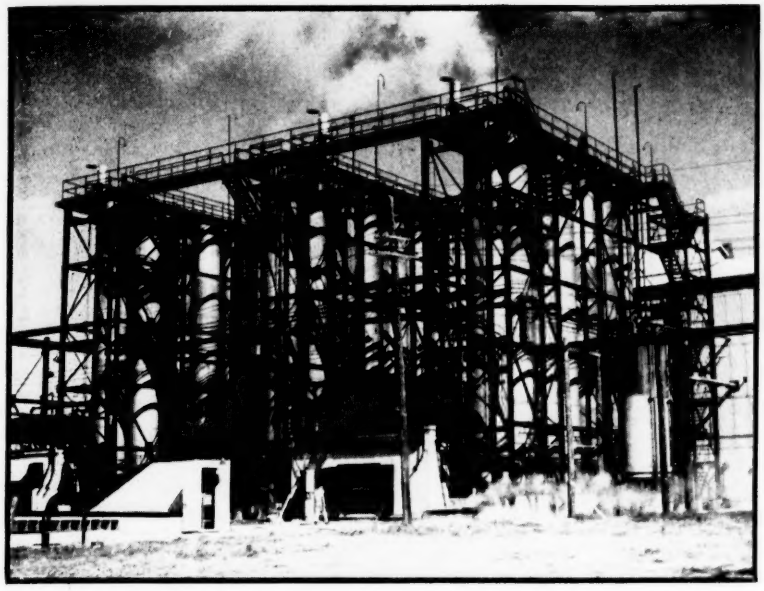
The number of federal employees in the coming year will be more than twice the number on the rolls in 1939, the last year prior to the war emergency.

Federal expenditures for personal service in the coming year will be narly four times the 1939 figure.

If the estimated employment for the fiscal year 1949 were reduced 30 per cent, or 630,000 employees, the total would still be half a million greater than it was in the year just prior to the war emergency.

It would appear that a half million additional civilian employees should be sufficient to meet our postwar requirements including the new military expansion, the foreign aid programs, veterans' services, etc.

I am confident a reduction of this percentage or more could be made without impairment of any essential functions. The annual savings would be more than $2 billion.



ABSORPTION TOWERS, an important part of the Lion Oil Co. nitric acid plant near El Dorado, Ark. The acid is used in making ammonium nitrate.

Chemicals—Industrial Giant

By Caldwell R. Walker
Editor
Blue Book of Southern Progress

FOR those having new capital to invest, chemical manufacture, already a giant among Southern industries, is a field that will bear careful analysis.

Ranking third in the South's manufacturing group, led only by Food and Textiles, the manufacture of chemicals embraces a wide variety of products and is registering outstanding growth.

First Quarter. During the first three months of this year, value of products totaled close to one billion dollars (941 million), and was ten per cent of the total value of all products manufactured in the 16 Southern states.

In the same period of 1947, production amounted to $851 million. Practically all of this gain represented increase in physical production. Inflation in chemical prices amounted to not over five per cent between the two periods.

Similar production gains are to be noted in previous years, especially those made abnormally active by the war. Since 1939, value of chemical products turned out in the South has grown from a billion dollars annually in that last census year to 8 2½ billion in 1947. The estimate for the latter year is based on first-quarter figures derived from preliminary compilations for the next edition of Blue Book of Southern Progress. While some seasonal variation exists in the chemical industry, the variables are slight, and the first quarter of the year may be accepted as a good measuring stick for the full 12-month period.

Investment Warning. From an investment standpoint, one warning may be in order. Chemical manufacture is big business. The financing of a chemical plant is a high capital proposition. A great deal more capital per unit of production, and per worker employed, is required in this enterprise than in most others.

From an operating standpoint, chemical production is largely a mechanical process, eliminating a great deal of the labor risk. It is an industry that consistently carries a high margin of profit, and permits payment of better than average wages and salaries. This industry has an enviable record of comparative freedom from work stoppages caused by labor disputes.

Raw Materials. In addition to these operational advantages, chemical plants located in the South have the advantage of nearby raw materials. Inbound freight costs are, accordingly, materially lower than those borne by competing firms in other areas. For practically every item produced in the chemical line, the South offers the basic ingredients. Petroleum, coal, fats and oils, nitrates, sulphur, salt, and other products that compose the heart of chemical raw materials are to be found in abundance in the South.

In consumer chemical products the South's production is underbalanced. It is in this field that the greatest investment opportunity lies. The South is turning out volumes of heavy chemicals suitable for use in further manufacturing process, but its output of finished products is far below the requirements of the region. Some growth is to be noted in the production of these latter since prewar years, but growth has been far less than in other sections of the chemical industry and manufacturing in general.

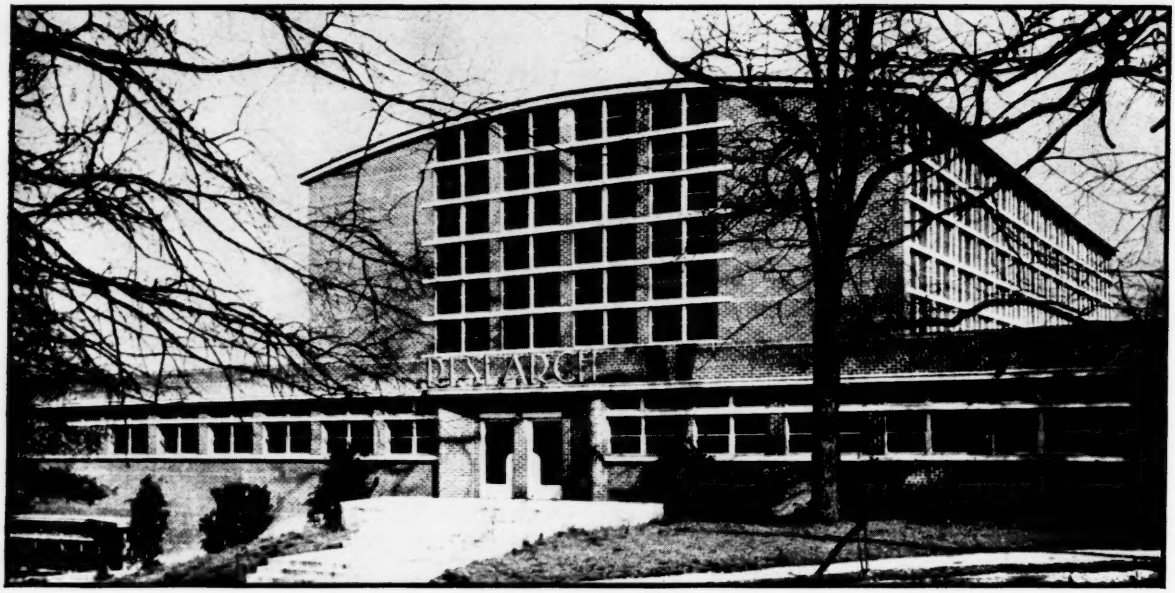
Products. Products embraced in the chemical group cover a wide range. Roughly they fall into two general classes: basic products and finished products. Official classification, however, as used in census procedure, adopts a more extensive differentiation. In the South, as well as in the country at large, seven class groups take in practically all types of chemical goods that are manufactured: basic or heavy chemicals which are used primarily for further refinement or consolidation into usable commodities. In this group are to be found the industrial chemicals and semi-finished raw materials, the salts, acids, alkalies, also synthetic fibers, plastics and mixing oils.

It is in this category that the South shows greatest prominence. Ingredients are largely of Southern origin, and in most industries it has been the policy of the South to work from the grass roots upward in progress toward full utilization of natural materials. In these basic, or semi-finished products the 16 Southern states turn out 31 per cent of the national total, not including oils and fats. With the latter included, the South's portion would be 34 per cent. Inasmuch as a great part of Southern oils and fats go into consumer products, they are classified here as a separate group. Thus classified, they represent 48 per cent of all oils and fats produced in the nation.

Fertilizers. Following these two groups in volume of output, the manufacture of fertilizers makes up another group in which the South predominates. The 16 Southern states turn out 69 per cent of the nation's supply of fertilizers.

Also, in naval stores, an important chemical group component, although of considerably smaller volume, the South holds undisputed leadership, producing 89 per cent of all domestic supplies. Actually the South produces 100 per cent of naval stores proper, but classified within this group because of similarity of origin, and

(Continued on page 57)



IN ADDITION to its important work as a part of the State Engineering Experiment Station at Georgia Tech, pictured here, the Technical Information Division can offer a wide variety of research services to industry.

Industry Aided by University Research

A division of the research station at Georgia Tech provides industry with research and development assistance.

By B. H. Weil*

INDUSTRIES today are vastly different from their predecessors of 50 years ago. In those days, business sense was the prime requisite, combined with manufacturing techniques learned by apprenticeship and hence based on hereditary "know-how." Scientific and technological advances of the ensuing years have changed all this. In large industries in particular, specialization is the order of the day, be it in the business office, the research laboratory, or on the production line; and special training is required to prepare men for those positions not concerned with routine. Small industries, also, have by no means been immune to the problems presented by modern technology; in fact, they are often confronted with situations with which their more limited staffs and budgets are less able to cope.

To satisfy its needs for men trained in modern science and engineering, industry has long been turning to the colleges of this nation, and an increasing awareness of what types of training are needed has lately enabled these institutions to be of more service in the "production" of technical manpower. Similarly, industry has long since learned the value—the absolute necessity—of research and development. Individual companies have attempted varying methods of performing such work—the creation of research groups within an organization, the employment of consultants, the establishment of fellowships or projects at industrial research organizations (privately operated, regional, school-supported, etc.), or the simple or more costly expedient of licensing processes and equipment developed elsewhere and then depending on the licensor for the "know-how" required.

Research Institutes

As mentioned above, some of the research assistance needed by industry is being performed by industrial research organizations established for that purpose. One such agency is the State Engineering Experiment Station of the Georgia Institute of Technology, established by the State of Georgia to aid directly in the development and integration of industrial activities and the better utilization of resources in the South, through its investigations and technological studies.

In addition to the performance of engineering and scientific research for various companies, groups, individuals, and government agencies, the Georgia Tech Engineering Experiment Station has long offered various auxiliary services. Its Industrial Economic Research staff has made economic studies of the potentialities of areas, industries, and raw materials. The services of its Engineering Design Division are available on project problems requiring mechanical design or evaluation.

Technical Information Division

Late in 1945, to round out its service potential, the Station established its Technical Information Division. Within the Station, this division provides the background information needed to conduct various research problems by preparing, upon request, complete literature and patent searches and surveys. It also manages patent matters concerned with Station research programs; helps to edit and handles the publication of Station bulletins, circulars, reprints, and special reports; and serves as a "quality control" group for Station reports to sponsors of research programs.

In addition to these internal Station duties, the Technical Information Division provides a variety of services for those who need them, and it is with these

*Chief, Technical Information Division, State Engineering Experiment Station, Georgia Institute of Technology, and editor of its bimonthly journal, "The Research Engineer."

services that this article is concerned.

Types of Services

The Technical Information Division is staffed to provide any or all of several varying services:

Information Searches. When a new research project is to be started, a new company is about to begin operations, or it is desired for any reason to know everything that has been done in the field in question, it is more than helpful to have available an index to the pertinent literature. Such a guide is the information search, which comprises a more or less complete list of references on a subject—articles, books, bulletins, patents, etc.—arranged in some logical manner, with or without abstracts (digests) of the data contained in the original sources. When a search is of considerable size, a subject and/or author index may be required, depending upon the arrangement employed. Where desired, such searches may also contain summaries or discussions of their findings.

Information Summaries. Many problems are of such a nature that it is highly desirable that the information located be considered critically and an annotated summary prepared. This is the information summary or literature survey. Stated another way, an information summary is a report of the pertinent information on a subject, in whose preparation the references located are considered critically and only those data are included which pertain to the purpose of the report. Such a literature survey may be an economic analysis of information on a process or product, a survey of the available information on one or more phases of a subject, etc.; it may not list all the references located, but it does attempt to summarize the pertinent data in those which seem reliable.

The Technical Information Division is available for the preparation of such summaries as are desired. Summaries of this nature often occupy only a few pages, but their contents represent the crystallization of the study of many.

Current Information Service. Many companies and whole industries are finding it highly important to keep up with technical and economic developments as they occur, rather than wait for a chance reference to them or for their eventual inclusion in a literature search or summary. For this reason, the average engineer or industrialist subscribes to one or more journals in his field, but he rarely has the time, inclination, or money to subscribe to all of the journals which would be of value to him to read them while they are current.

Here again, many large organizations have established abstracting services which quickly digest the pertinent articles and publish these abstracts in bulletin form. Some of these groups also copy these abstracts on cards and classify them under a predetermined system, thereby a reference file for future use is built up.

Another current information service of considerable merit is the current information summary, which critically reviews and reports technical and economic developments as they occur, gleaning the information from a continuous survey of pertinent literature, attendance at meetings of societies, etc.

These types of current information services are readily prepared simultaneously, and they all serve to keep the industrialist and scientist abreast of his field and, on occasion, to provide him, without loss of time, with some vitally needed but hitherto unavailable information. Any or all of these services may be established in any desired field through the Technical Information Division.

Patent Service. Realizing that the industries of this region have available only limited patent services and that no complete patent library exists in the South—a defect which the Georgia Tech Library is in the process of remedying—the Technical Information Division is also prepared to handle patent searches where these deal with matters concerned with or anticipatory to Georgia Tech Engineering Experiment Station research problems or where the search is of major proportions and falls within a field of specialization of some member of the Division's staff.

Facilities

Georgia Tech is particularly well equipped to offer informational service because its library is one of the best in the South, comparing favorably with any in regard to its collection of technical books and journals. This collection of approximately 100,000 volumes is being continually increased by new accessions, and its scope is further widened as the occasion demands. Whenever a new field of industry becomes of interest, every effort is developed to completing a collection of pertinent journals, bulletins and books.

In addition, the Technical Information Division is continually building up specialized information files, and ready access may be had to nearby general and special libraries, such as the Carnegie Library of Atlanta, the general and medical libraries of Emory University, the Atlanta Branch Library of the United States Department of Agriculture, the library of the Georgia Agricultural Experiment Station, etc. When necessary, references can also be made to the major libraries of the nation, either through interlibrary loans or direct visits.

STAFF MEMBERS correct pages of literature search on dry cell technology.

Personnel

As regards personnel, the Technical Information Division maintains at all times a nucleus of information workers and economists, additions being made to this staff when needed. Of great advantage is the close association with a technological school. Faculty members are available for consultation or actual direction of searches and summaries. Graduate students in the fields relating to the problem being studied are often employed on long- and short-term projects; those particularly adept are sometimes given graduate assistantships by the Station and thus are added, for a time, to the working staff of the Division. On occasion, undergraduate students are employed to aid in those tasks for which their education is sufficient.

To reproduce reports of studies, the Station maintains an adequate typing and editorial staff, in addition to a reproduction and photographic laboratory. Reports may be typed, multilithed, or mimeographed, as desired; photostat and ozalid reproduction is available for illustrations. When numerous copies of searches or summaries are required, resort may be made to photo-offset printing or letterpress reproduction.

Work Done In Past

The question always asked of any organization is: "What work of this nature have you done in the past?" If the group is new, it must rely upon its potentialities to replace "experience"; if it has been in existence for a number of years, it is often hard to choose examples which are really representative.

Many of the projects carried out to date by the Technical Information Division have been in the chemical engineer-

(*Continued on page 56*)

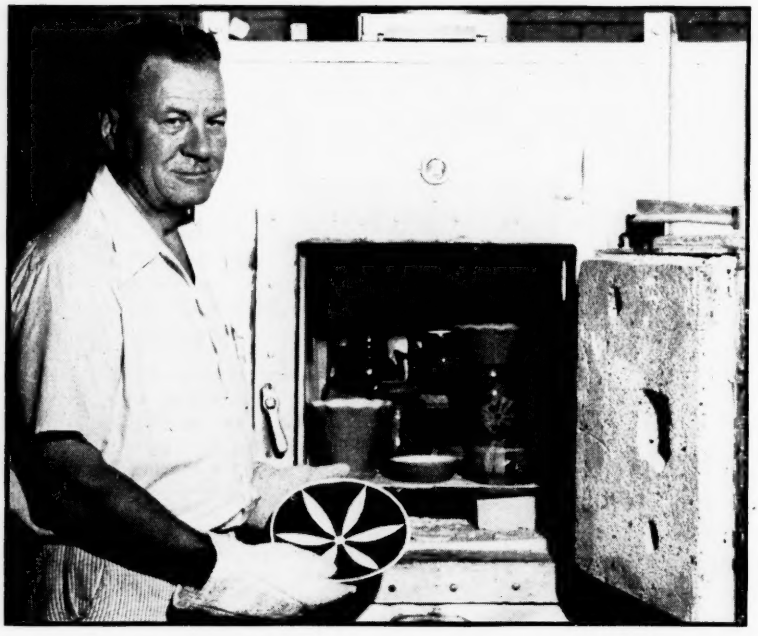
Texas Ceramic Industry Growing

Three times as many potteries operating now than in 1940 can't begin to satisfy the demand

By F. K. Pence*

FOR a generation factors favorable to a flourishing industry in fine ceramics in Texas have been a subject of general comment. However, like the weather, not much was being done about it. As late as 1940, a survey of new ceramic industries over the country showed only six pottery industries operating in Texas.

University Training. In July of that year, a Ceramic Division was set up at



MODERN PLANTS turning out finished products like these have no trouble finding a ready market for all and more than they can produce.

The University of Texas. The activities of this division consisted chiefly in the investigation of deposits of ceramic raw materials in various parts of the state. This investigation had not progressed far until it became apparent that there was need for an instructional department where knowledge and training in the fundamentals of ceramic engineering could be obtained. Requests came in from many young men who desired to obtain this instruction and at the same time it was found that the lack of such trained personnel was a distinct bottleneck holding back the industry. For a period of three years special instruction was offered and in 1945 a full-fledged Department of Ceramic Engineering was set up.

Interest Grows. During this period, between 1940 and 1945, the interest in the possibilities of ceramic industry was characterized by a constantly increasing tempo. Based on this public interest the State Legislature made a substantial appropriation for setting up at The University of Texas, a Department of Ceramic Engineering and Ceramic Research Laboratory. This appropriation became available September 1, 1945. Meanwhile and before the new department had gotten well under way, a number of small potteries were set up without adequate ceramic engineering personnel. It is surprising to state that nearly all of these have survived and many are in process of expanding to substantial proportions. Also, several substantial industries, branch plants of eastern companies, have been established in the state. As an example, two large glass industries and two large refractory plants were set up in central Texas. These branch industries have flourished beyond fondest anticipation of the parent companies.

The field is wide open for outside ceramic industries to establish branch plants in Texas. Outstanding in this group is the table ware industry. Not a single plant manufacturing table ware or fine china is located in Texas or the surrounding states.

Training Important. There are now approximately a score of small potteries operating in various sections of the state, and those that have been headed by trained or experienced personnel have shown the best progress. Fortunately, the Department of Ceramic Engineering has begun to turn out graduates who are entering this field of new and budding industry. On the other hand some of these graduates are planning to enter upon business ventures of their own. In fact, many students enroll in Ceramic Engineering because ceramic industry is one of the few lines of manufacture which can be operated economically on a small or large basis.

Industry Expanding. A number of the smaller cities in Texas have plans for encouraging or setting up new ceramic plants of moderate size as a means of solving the problems of their local economy. An example of how this can work out can be taken from the newly established glazed wall tile industry. Some of the larger centers of Texas have been talking about setting up this industry for a generation. The first wall tile industry in the state, however, was established in West Texas at San Angelo about two years ago. More recently a similar industry has gone into operation in Dallas. Both of these industries already have employed students from the Department of Ceramic Engineering and are forging ahead in spectacular fashion.

The field of white porcelain is represented in the state by two plants manufacturing sanitary ware. The first established at San Antonio approximately three years ago, has enjoyed phenomenal expansion. The other plant at San Marcos is in the beginnings of a similar program.

High Potential. The factors and examples set forth in the foregoing demonstrate beyond all question that ceramic potential in Texas is literally "bursting at the seams." The problem of industry already set up in the area is only how can it expand to keep pace with the pressing demands for more product. The call for new plants in those fields not now represented is loud and distinct. Fortunate indeed will be those manufacturers who will hear and meet the call. The Texas Legislature took a farsighted position when it set up the Research Laboratory and Department of Ceramic Engineering at The University of Texas. A clearing house and consulting headquarters for the Ceramic movement has thus been provided. Inquiries pour in from both within and without the State for all manner of information pertaining to Ceramic opportunity in Texas.

**Professor Pence is Chairman and Director, Research Laboratory in Ceramics, Department of Ceramic Engineering, University of Texas.*

LABOR

Labor Relations Mumbo-Jumbo

For those in business a thorough understanding is essential because this verbiage is apparently here to stay

By E. W. Mounce and Robley D. Stevens*

THIS is the age of the specialist, not only in the business and professional world but also in the language world.

There might well be courses devoted entirely to labor relations phrases and wordage. In the business field, a thorough understanding of this labor relations mumbo-jumbo is a prerequisite for a better understanding of human relations.

Knowledge of labor relations mumbo-jumbo, is as much a hallmark of learning today as was, perhaps, familiarity with the classics a generation ago. Both labor and management appear hungry for such knowledge. Hence, the following data is understandable and workable. In fact, to attempt a correct interpretation of labor relations mumbo-jumbo constitutes an intriguing experience.

It appears that the field of labor relations mumbo-jumbo is opening wider, with each new contest between the forces of management and labor, for those interested in the interpretation of this confusing language.

Interpretation Is Essential

The interpretation of this mumbo-jumbo language of the business and industrial scene may be likened unto equipping one with a number of master-keys each of which fits some important lock, ultimately opening the door of understanding. This presentation, of course, is in "skeletonized" form and merits more and better treatment. But since space is limited, it is essential that we confine ourselves to such statements.

Since the passage of the "Taft-Hartley Act" employers and employees may have had their troubles in attempting to solve their human relations problems under Government regulation. But, ever since the enactment and even back to the date of the inception of the "Wagner Act of 1935" and the "Fair Labor Standards Act of 1938," the public, in view of front page headlines, has been attempting to understand Americas newest nomenclature, namely Mumbo-Jumbo—the oily language of labor and management.

As in the case of music and literature, the public has found it difficult to understand the reservoir of verbiage in this relatively new field of labor relations. In fact in order to acquire understanding, it must know more about it.

Usage Spreading

Nevertheless, labor relations mumbo-jumbo language is here to stay. In the past, labor law analysis and interpretation of collective bargaining practices was simply too far away for the average person, primarily because the subject appeared uncolorful and of little practical implication.

However, today, the spotlight of attention is definitely focused upon the problems of labor and management relationships. Further, it appears to be the lifeblood of millions. Chances are almost everyone is exposed today to these problems in the daily press. The available evidence rather clearly indicates that interest in labor relations mumbo-jumbo is increasing tremendously. This is due primarily to the fact that the economic and social outcome directly and indirectly affects all of us.

Hence it is essential that one make a serious effort to understand the jargon that has recently developed in the field of labor relations.

Labor relations functions are so numerous that it is impossible to discuss every phase. Yet out of the changing conditions of our times there emerges a tendency indicating that the public is not only concerned with such problems but possesses a desire to understand them better.

Easy To Understand

When the U. S. Supreme Court renders a ruling in the realm of labor relations do you feel that you completely understand it? When the union engages in collective bargaining with management, do you understand the terms and language they use? Do you know "Who's Who" in labor relations? If you don't then open your eyes and ears, and hear all about them. By doing so, you'll be better equipped to understand what is taking place. It is not an overwhelming task. In fact, it is exciting and instructive.

On the other hand, how could you expect to converse with an expert effectively, and understandingly unless you completely understand and know something about the language he speaks? Further, it may assist you in assuming a good front.

So the charlatan of labor relations mumbo-jumbo requires evaluation. The strange language may stimulate you to supply other missing words in this category. By keeping your perceptions alert, you can acquire a knowledge and understanding that will help you—the framework of labor relations conversation. Understanding charts, graphs and tables as well as verbiage has a purpose. Want to give it a test? Quiz yourself now on the terms listed on this page and discover how much descriptive talent you possess.

VERBIAGE	CODE
Annual report	1
Annual Wage Plan	2
Apprenticeship	3
Aptitude Testing	4
Arbitration	5
Back Pay	6
Business Agent	7
Certification	8
Collective Bargaining	9
Cost of Living Index	10
Discrimination	11
Dispute	12
Earnings	13
Efficiency Rating	14
Featherbedding	15
Group Insurance	16
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*E. W. Mounce, M.A., LLb., LL.M., is professor of Law and Labor, University of Maryland.

R. D. Stevens, J.D., is a former official representative, U. S. Department of Labor; author of "Test Your Knowledge," "Labor Relations Writing," Etc.

XUM

Mumbo-Jumbo

(*Continued from page 39*)

What is your Score?

Now test yourself when scoring your knowledge. If you know more than 75 per cent of this mumbo-jumbo language, you should consider yourself a highbrow interpreter. If your test score shows slightly less than 50 per cent correct, your knowledge is probably average. In that case you may want to fill your nostrils with more scent, and thus build us your vocabulary with more favorites. Acquiring a greater knowledge helps to distinguish the difference between truth and propaganda. Beyond this point, it is entirely up to you to learn more about all labor relations mumbo-jumbo terminology, formulas and accessory tables of discussions. However, this is a realistic approach in developing your knowledge. Individuals who are commercially interested in labor relations functions find it valuable and, for them, there is no finis to it. In fact, many are growing rich using and selling such knowledge. So the proper exploration of it pays off if you tap the vein of this peculiar language.

Mumbo-Jumbo Used Officially

Further, if you'll leaf through the pages of labor laws, union contracts and other labor-management publications, you'll probably find tucked away on almost any page many magic labor relations phrases. But you can easily understand them if you go about it correctly.

Now turning to the answers, let us examine the following. By knowing them will lend status and dignity to yourself, primarily because labor relations mumbo-jumbo language is significant and far-reaching today.

Labor Relations Mumbo-Jumbo Interpretation

CODE ANSWERS

1 Official statement of functions, activities, etc.
2 Per annum guarantee of earnings
3 Training program while on job
4 Psychological method of evaluation
5 Voluntary settlement of a dispute
6 Restitution of back wages due
7 Union representation
8 Official recognition of collective bargaining agent
9 Means of process of group negotiation
10 Bureau of Labor Statistics survey
11 Action presumably taken dis-advantageously
12 Confliction of opinions between individuals
13 Compensation obtained
14 Survey of ability and performance on job
15 Presumably a limitation of workers performance
16 Group coverage available to workers
17 Feeling of discontent
18 Employment in one's house
19 Payment of sick benefits
20 Organization not affiliated with AFL or CIO
21 Court order refraiming particular acts
22 Pertinent data relating to nature of job
23 Relative monetary value of job worth
24 Employer - employee representatives
25 Human relations on a group basis
26 Employer authority and responsibility
27 Attitude-reaction of workers
28 Agent who handles employer-employee relationships
29 Working in the dark
30 Union agent promoting organization collectively
31 Restitution of compensation
32 Retirement financial programs
33 Extra compensation
34 Placarding existence of a labor dispute
35 Performance of employment
36 Restoration
37 Minimum-maximum scales
38 Monetary amount paid terminated workers
39 Priority of employees
40 Employed for a short duration
41 End of duration of employment
42 State law recognition for payment in a given period
43 Organization whose purpose is to band together collectively
44 Person who served in armed forces
45 Compensation received for services rendered

While there are many dabblers in labor relations mumbo-jumbo language, it is believed that you won't have to spend a full 40-hour week digesting, indexing and classifying this verbiage because it can be done in spare time or through "home study." It's a matter of coordination which is highly desirable and contacts.

Those who master labor relations mumbo-jumbo language will not have to accept incomplete answers. Knowledge thereof is a means of avoiding mis-interpretation. The probability is that propaganda will not influence you if you know something about it. It's not a question of scholastic aptitude but merely a matter of solving labor relations mumbo-jumbo language on a practical basis that counts.

Labor News Being Made In Courts

Wage differences were resolved more or less amicably, but demands for closed and union shop contracts caused trouble.

So far this year approximately two-thirds of all union workers had received their third wage boost since the war.

Lewis and the law. Early in July Federal Judge Goldsborough again summoned John L. Lewis, this time to show cause why an injunction should not be issued against his captive-mine strike. It all started when Lewis insisted on a union shop provision in his contract with the steel companies, that dig their own coal in "captive" mines. When the "captive" mine owners refused to comply with his wishes, Lewis prepared to strike . . . and several days later the operators filed unfair labor practice charges against him. The issue probably won't be decided until the spring, the usual deadline for mine strikes, unless the union shop section is cut out of the law in the meantime, and then will probably go to the Supreme Court to be settled.

On the hard coal front, a contract was agreed on which meant an increase in wages and welfare benefits for the miners, a rise of 56 cents per ton in production costs to the operators, and an inevitable additional increase of approximately 80 cents per ton to the consumer.

Railroads. Judge Goldsborough turned to the railway brotherhoods and, applying the philosophy of the Taft-Hartley Act, gave them a permanent order forbidding the firemen, engineers and switchmen from going on strike, because such a strike would seriously endanger the public health and safety. The brotherhoods quickly agreed to the same 15½¢ an hour boost given all the rest some time ago mainly because they wanted to get it while the getting was good, and then line up for the 25¢ raise that their brethren, the conductors and trainmen were already demanding.

The Trend. Taft-Hartley Act provisions dealing with the closed shop and the union shop appeared to be forcing collective bargaining from the conference table to the court room. Already before the judge have paraded railway brotherhoods, the UMW, seven maritime unions, the ITU, department store employees, packinghouse workers, phone workers and Oak Ridge unionists. Amendment of the law is not considered an immediate possibility.

Basing Point Ruling Poses Southern Problems

New Steel capacity a possibility to make the South independent of outside supply sources

By Sidney Fish

THE recent Supreme Court decision outlawing the basing point system has created many serious problems for makers and consumers of steel, cement and other heavy materials in the South.

As a result of this decision, a vast disruption of commercial relationships throughout the country seems likely to get under way, unless Congress promptly enacts a law which legalizes freight absorption, which is the cardinal principle of the basing point system.

Costs Rise

Already material costs have risen sharply for many consumers of steel and cement, as a result of the action of steel and cement companies in adopting an f.o.b. mill system of prices. Shifts in normal sources of supply will aid consumers located near the steel and cement mills, and harm those located far away. While business activity remains at a high level, the net effect of the dropping of the basing point system is chiefly to raise costs for consumers. But when a buyers' market returns, inequalities created by the new f.o.b. mill prices will make it harder for badly situated consuming industries to survive. Meanwhile, the distant consuming plant or area will find it more difficult to get steel and cement, which are already in short supply.

Reaction To Court Decision

It is not surprising that such far-reaching effects of the Supreme Court's action are resulting in a violent reaction among buyers of steel and cement. Congress is being urged to undo the harm by passing a law which will specifically legalize freight absorption.

Meaning of Change

What does the shift from the basing point system to f.o.b. mill prices entail? Simply this: *Formerly*, steel and cement, together with dozens of other materials, were sold at the same delivered price by all mills, regardless of the distance from the individual mill to the consumer. *Henceforth*, each consumer will find that prices that he must pay will vary depending upon the freight charges from each supplier's plant to the point of delivery. The consumer who is located nearer to the steel mill will be able to buy at lower prices.

Purchasing agents will have to indulge in laborious calculations to find out which of many possible sources of supply is the cheapest.

The change, as ordered by the Supreme Court, arises from the fact that formerly, the more distant supplying mill, under the basing point system, would absorb just enough freight costs so that it would deliver its products at the same prices as the nearest basing point mill.

Multiple Basing Points

Originally, there was only one basing point when the old Pittsburgh Plus system of prices was in existence. But since 1922, the major industries of the country have operated under a multiple basing point system, under which each mill has become a basing point. Phantom freight, or the practice of charging freight from a distant basing point mill, while deliveries were actually made from a nearby mill which was not designated as a basing point, was discontinued in steel and cement long before the Supreme Court's recent decision in the cement industry's case.

System Defended

The basic industries have vigorously defended the multiple basing point system against charges that its use indicated collusive restraint of trade. Actually, the absorption of freight by the mills permitted them to compete more widely with other mills.

The Supreme Court also charged that use of the basing point system was discriminatory under the Robinson-Patman Act. The Court favored a system of pricing under which the nearby consumer would be able to pay a lower price than the distant consumer. It held that the use of uniform delivered prices, and the practice of freight absorption on a "systematic" basis, was illegal.

The South today is in the midst of rapid industrial expansion. Will the ending of the basing point system end that growth? Will it starve rapidly growing steel consuming industries out of their needed supplies of materials? Or, by aiding decentralization, will the South's growth be speeded by the new f.o.b. mill prices?

Meaning To South

The economic outlook seems to point to continued decentralization of industry throughout the country, and particularly rapid growth in the South, regardless of the outcome of the basing point issue for the following reasons:

1. It is likely that Congress will legalize freight absorption in some form, for the sellers of materials. The present outcry of thousands of consumers against a change in the system of prices should assure legislation invalidating the Supreme Court's decision.
2. If the new f.o.b. mill system remains in effect, competition between steel companies for the market in the South will stimulate them to set up new steel-making plants during the next ten years in industrialized areas, to take care of the growing demand. This would gradually make Southern steel consuming plants independent of more distant sources of supply in the East or Midwest.
3. Regardless of the impact of the Supreme Court's decision, the steady rise in freight costs in recent years is encouraging industry to decentralize by setting up new steel producing and steel consuming plants near the large markets. This means that new automotive parts and assembly plants, and factories making household and farm equipment, will be established closer to the areas of consumption, rather than in existing traditional centers of production, such as Detroit and Akron, wherever steel capacity is available near the new centers, even if Congress validates freight absorption.
4. The rapid rise in purchasing power in the South as reflected in Government statistics assures larger markets for all types of manufactured goods. It makes the area a more desirable location for plants making steel as well as products fabricated of steel, such as household equipment and farm equipment.
5. The raw material resources of the South—iron ore, coal and limestone will support an expansion in basic steel capacity. In the future, also, new tidewater mills may be built which will use imported ore. (MR, May '48, P. 132—Sept. '47, P. 33.) It seems likely,

(*Continued on page* 56)

CONSTRUCTION

$3,500,000 BRIDGE being built over the Chesapeake and Delaware Canal, at Chesapeake City, Md., by the Corps of Engineers. Replacing a span destroyed by accident, the bridge will have a clear span of 540 feet between the main piers.

July Awards Total $222,061,000 33% Above Same Period Of 1947

SOUTHERN construction so far this year is valued at $1,604,339,000, the second highest figure on record for a comparable period. The all-time peak for seven months was reached in the first war year of 1942 when construction contracts below the Mason and Dixon line amounted to $2,312,180,000. Only one other time has construction passed the one and one-half billion-dollar mark in seven months. That was the $1,523,280,000 in 1941.

Value of construction contracts in the South during July was $222,061,000, a figure that is thirty-three per cent above the July of 1947, but ten per cent below the $246,762,000 for June of 1948. The July level of construction value was slightly above that for February, thus placing fourth in the first seven months, the highest total for which was the $270,644,000 recorded in May.

Compared with the similar period of last year, the current seven-month total is fifty-five per cent higher. Private building, with its $461,792,000 total, is one of the substantial factors in the gain. Such work is now more than twice the $223,306,000 value at this time last year.

Public building was another important element in the increase, with the $347,849,000 for the first seven months of 1948 representing a ninety-five per cent increase over the comparable figure for last year.

Heavy construction so far is valued at $235,525,000, a thirty-seven per cent increase over last year's figure at this time. The gain in value of highway contracts over the same period of 1947 is twenty-nine per cent, the current value being $289,847,000. The smallest rise was in the industrial field. Current contracts amount to $269,326,000, or thirteen per cent ahead of industrial contract values for the same period of 1947.

From a dollar viewpoint, residential construction was the most important factor in the private building gain. The $313,138,000 residential figure was almost twice the value for the 1947 first seven months. Assembly buildings were valued at $63,468,000. Embracing churches, theatres and other similar projects, the figure was more than four times the size of the total for such work in the same period of last year. Commercial projects at $62,102,000 are almost two and one-half times the total of last year's first seven months. Office building is very slightly ahead.

Industrial Construction Lag

The apparent lag in the rise in industrial construction is attributed in some circles to an uncertainty in procuring both the materials for the buildings and the equipment to be installed in them. According to a survey of the Associated General Contractors, contributory cause for a drop in industrial construction volume appears to be that prospective owners are anticipating shortages of necessary materials, particularly steel, needed for capacity operation of the planned factories.

Both constituents in the public building total were in the "twice-as-much" class. Government buildings, as such, fell just short of being twice the figure with a $149,798,000 total for the seven months. School projects, however, were more than a hundred per cent more, the current total being $198,051,000, as compared with the $94,131,000 for the first seven months of last year.

The heavy engineering figure was made up of $125,115,000 for dams, drainage, earthwork and airports; $78,805,000 for sewer and water work and $31,605,000 for federal electric projects. At this time last year, the figure for the first mentioned category stood at $121,871,000. Totals for the others were $37,902,000 and $11,201,000, respectively. Total for highway construction in the seven months is $289,847,000.

SOUTH'S CONSTRUCTION BY TYPES

	July, 1948 Contracts Awarded	July, 1948 Contracts to be Awarded	Contracts Awarded First Seven Months 1948	Contracts Awarded First Seven Months 1947
PRIVATE BUILDING				
Assembly (Churches, Theatres, Auditoriums, Fraternal)	$11,809,000	$13,647,000	$63,468,000	$15,466,000
Commercial (Stores, Restaurants, Filling Stations, Garages)	7,318,000	10,442,000	62,102,000	26,745,000
Residential (Apartments, Hotels, Dwellings)	33,077,000	20,855,000	313,138,000	158,273,000
Office	4,405,000	3,225,000	23,084,000	22,822,000
	$56,609,000	$48,169,000	$461,792,000	$223,306,000
INDUSTRIAL	$29,035,000	$103,214,000	$269,326,000	$237,361,000
PUBLIC BUILDING				
City, County, State, Federal and Hospitals	$18,161,000	$87,193,000	$149,798,000	$83,653,000
Schools	25,236,000	42,372,000	198,051,000	94,131,000
	$43,397,000	$129,565,000	$347,849,000	$177,784,000
ENGNEERING				
Dams, Drainage, Earthwork, Airports	$19,726,000	$24,567,000	$125,115,000	$121,871,000
Federal, County, Municipal Electric	2,612,000	23,390,000	31,605,000	11,201,000
Sewers and Waterworks	23,431,000	26,770,000	78,805,000	37,902,000
	$45,769,000	$74,727,000	$235,525,000	$170,974,000
ROADS, STREETS AND BRIDGES	$47,251,000	$95,440,000	$289,847,000	$224,289,000
TOTAL	$222,061,000	$451,115,000	$1,604,339,000	$1,033,714,000

July's $222,061,000 included $56,609,000 for private building, which in turn embraced $33,077,000 for residential work, $11,809,000 for assembly type buildings, $7,318,000 for commercial buildings, and $4,405,000 for office type buildings. Next in dollar value were highways and bridges at $47,251,000. Heavy engineering totaled $45,769,000, with $23,431,000 for sewer and water work, $19,726,000 for dams, earthwork, drainage and airports and $2,612,000 for government electric work. Schools contributed $25,236,000 to the July public building figure, government buildings, $18,161,000. The industrial total was $29,035,000. All except government building were ahead of totals for July of 1947.

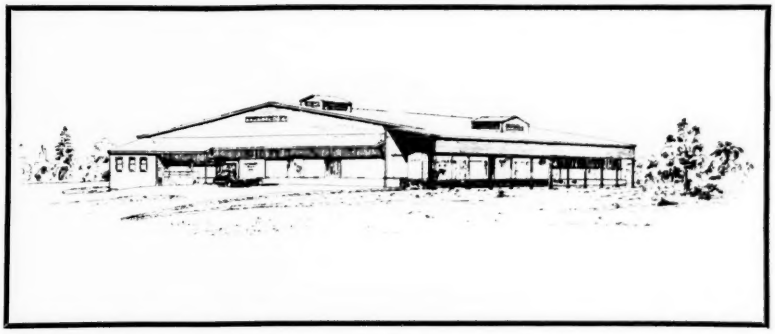
Price Rise Continues

The rise in steel prices coupled with higher wages granted to hundreds of thousands of production workers in the steel industry injects a note of uncertainty in the building industry, where one of the headaches already was a shortage of steel and where it was hoped prices were beginning to stabilize. President Truman's proposed anti-inflation program, despite its announced altruistic aims and political implications, is not expected to remedy what has developed into another wave of mushrooming price spirals.

The head of one of the country's large engineering and construction firms had previously said he expects a further continuation of the upward trend in industrial building costs. He stated that the cumulative impact of the basing point decisions, draft legislation and advancing wage and freight rates set the stage for rises even before the announcement of the steel price increases. A two-point advance to 170 in a cost index with 1926 levels set at 100 was observed.

Productivity Up

The company, however, pointed to an upward movement in the productivity of both skilled and unskilled labor, although the gains have been completely overshadowed by the other cost factors. "Unless administrators of the Draft Act allow men now nearing completion of apprenticeships in the building trades to finish their training, just as they plan to let college students round out their current academic year, construction industries may permanently lose most of the skilled men recruited since V-J Day through apprentice training programs," the announcement concluded.



FERTILIZER FACTORY now being constructed at Winston-Salem, North Carolina, by the International Minerals and Chemical Corporation.

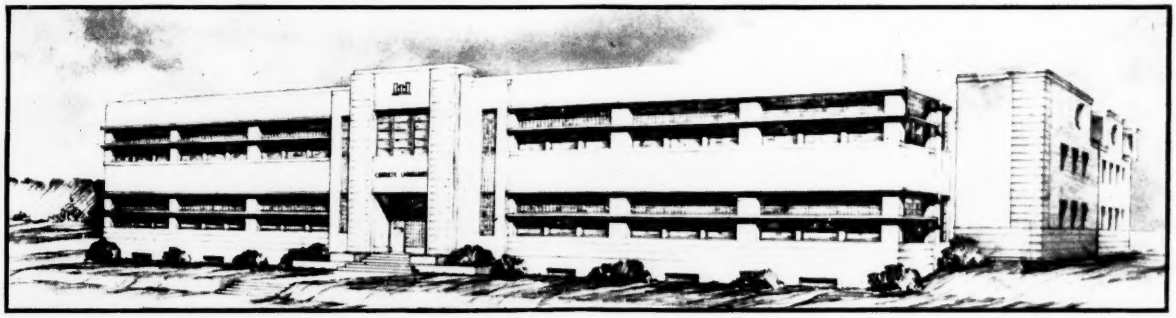
Non-Residential Costs

Associated General Contractors of America declares that non-residential construction costs are still showing a slight upward tendency, but that there are signs that stabilization might occur at or near present cost levels. Increasing exports for European recovery purposes and the expanded defense program are seen as possible unsettling factors in the future, particularly in the supplies of steel and equipment items available for construction work.

Discerning a trend toward equilibrium between supplies and requirements, the national general contractors organization says that many contractors "are demanding and getting firm prices on most materials." Material supplies, with exception of steel and cement, are improving or ample in many areas. Hard-to-get steel items, however, still contain escalator clauses. Availability of construction workmen appears to be satisfactory, except for shortages of bricklayers and plasterers in some areas and skilled operators of some highway and heavy construction equipment.

SOUTH'S CONSTRUCTION BY STATES

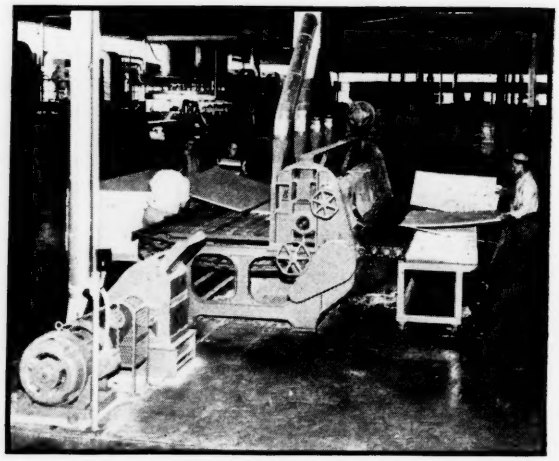
	July, 1948 Contracts Awarded	July, 1948 Contracts to be Awarded	Contracts Awarded First Seven Months 1948	Contracts Awarded First Seven Months 1947
Alabama	$5,296,000	$16,495,000	$100,894,000	$28,931,000
Arkansas	15,673,000	16,675,000	61,345,000	32,708,000
Dist. of Col.	5,844,000	9,970,000	26,279,000	27,973,000
Florida	21,991,000	58,100,000	177,121,000	109,798,000
Georgia	13,936,000	5,162,000	73,857,000	98,822,000
Kentucky	4,126,000	5,165,000	31,231,000	15,424,000
Louisiana	9,840,000	26,870,000	122,837,000	71,188,000
Maryland	21,161,000	94,811,000	130,733,000	86,188,000
Mississippi	5,946,000	29,312,000	44,037,000	47,112,000
Missouri	7,555,000	34,961,000	74,696,000	43,941,000
N. Carolina	7,791,000	9,051,000	77,425,000	43,985,000
Oklahoma	4,998,000	18,913,000	50,113,000	18,678,000
S. Carolina	10,210,000	10,391,000	50,739,000	28,450,000
Tennessee	15,364,000	17,984,000	72,262,000	23,297,000
Texas	61,078,000	80,341,000	400,448,000	296,319,000
Virginia	10,718,000	7,651,000	61,659,000	36,507,000
W. Virginia	234,000	9,263,000	48,663,000	24,393,000
TOTAL	$222,061,000	$451,115,000	$1,604,339,000	$1,033,714,000



CONTRACT WAS recently awarded by the Mississippi River Commission for the erection of this $256,000 office and laboratory building at Vicksburg, Mississippi. The structure will house the commission's research division.

INDUSTRIAL EXPANSION

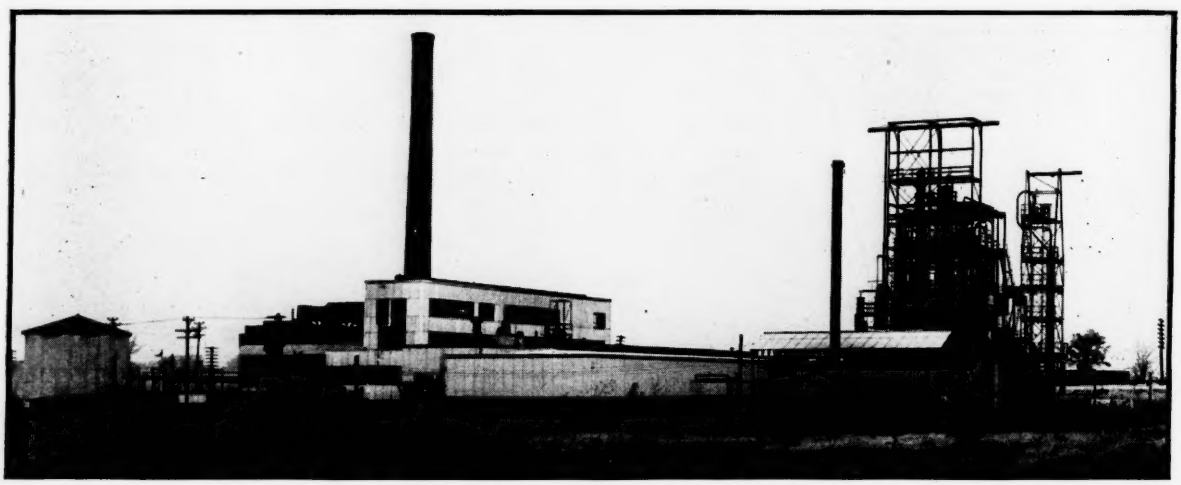
New Johns-Manville Insulating Board Plant



WORKMEN CUT insulating board to special sizes for Roofinsul at the new plant at Natchez, Mississippi.

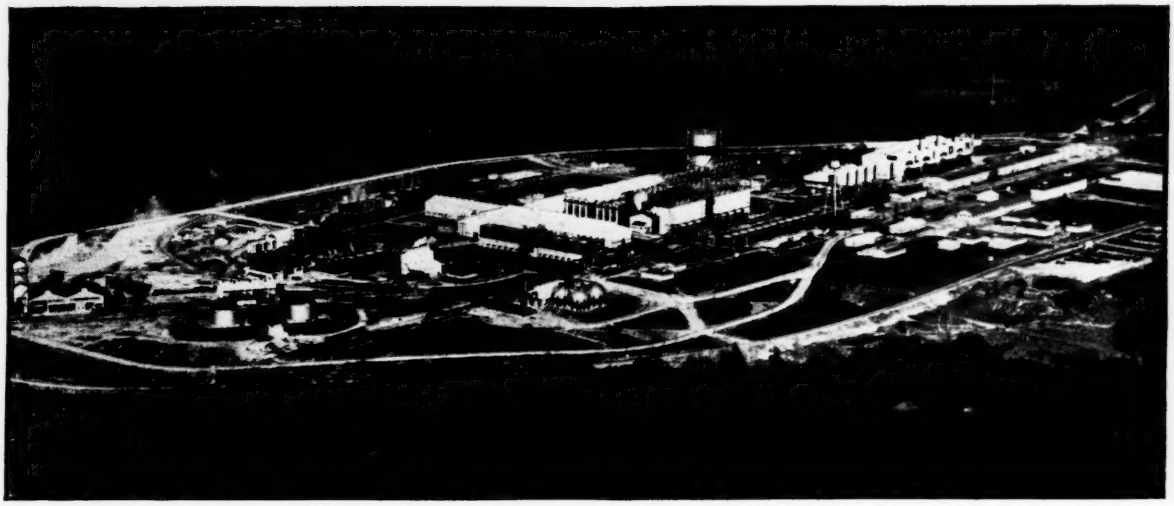
THIS PLANT recently completed for Johns-Manville at Natchez, Miss. by Ford, Bacon and Davis of New York and Monroe, La. will manufacture the complete line of Johns-Manville insulating board products from Southern pine and hardwoods.

Heyden Chemical Corp. Plant at Memphis



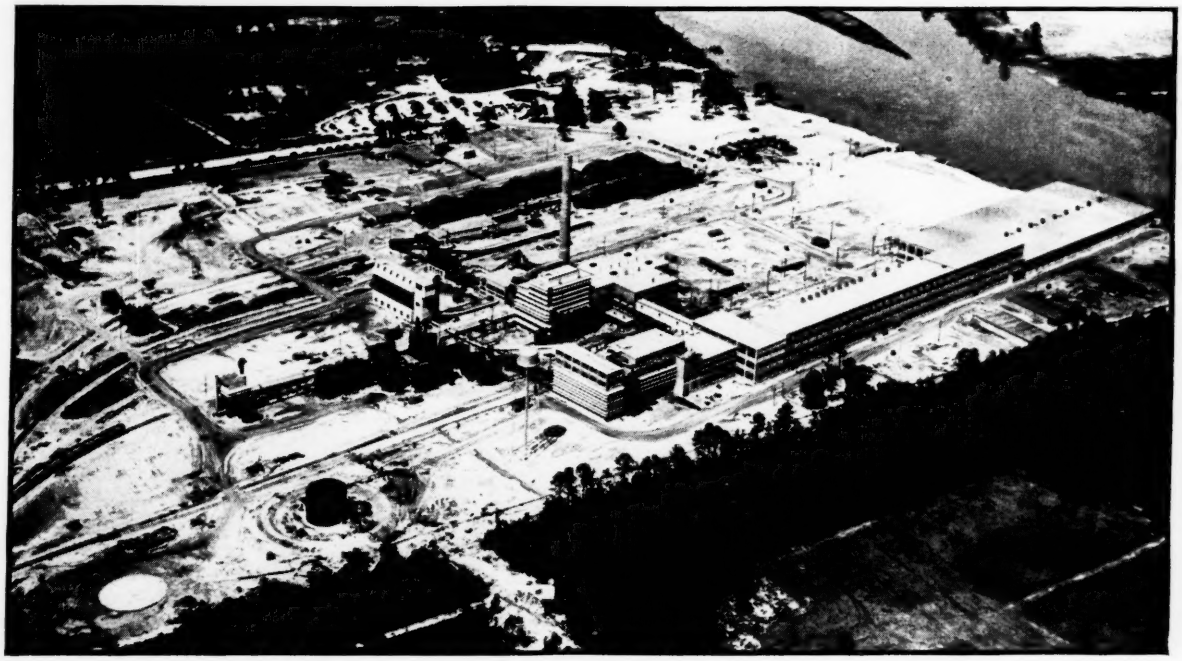
WITH THE COMPLETION of additions to both manufacturing and warehousing facilities, full scale production of ortho and para dichlorbenzene is now underway at the Heyden Chemical Corporation plant in Tennessee.

Lion Oil Spending $3,500,000 at El Dorado



EXPANSION of its chemical plant facilities at El Dorado, Ark. at an estimated cost of $3.5 million has been announced by the Lion Oil Co. The new construction will increase the anhydrous ammonia capacity of the plant by 32.6%.

New Mill For Southern Paperboard Corp.



SOUTHERN PAPERBOARD Corporation's new $11,000,000 linerboard plant located on a 160-acre tract at Port Wentworth, Ga., now in production turning out paper liner board and related products at the rate of 450 tons a day.

Southerners At Work

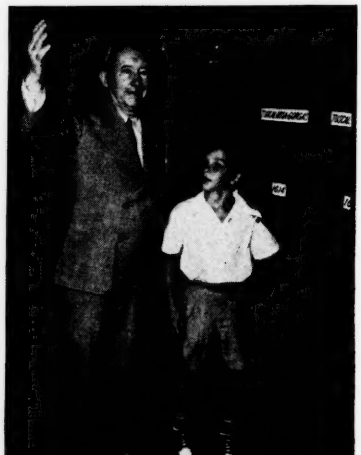
Thomas W. Martin

Late in June the Department of the Interior Bureau of Mines Information Service issued a bulletin which said in part: "Approval of a contract between the Bureau of Mines and the Alabama Power Co. for a second and larger cooperative experiment in underground coal gasification was announced by James Boyd, Director of the Bureau . . . ". This experiment, a follow-up of the one conducted last year, which was the first in the country, will be carried out in the same locale, the power company's Gorgas Mine at Gorgas, Ala. Here some 300 acres of Pratt seam coal, averaging 40 inches in thickness, plus the technical and administrative organization of the company will be donated to the experiment. The actual "out of pocket" expenses amounting to close to $500,000 are to be borne by the Government.

Two Experiments. The original idea for the gasification experiments came from Milton J. Fies, manager of the company's coal mine operations, in an effort to utilize a great deal of the coal predominant in the area that was considered uneconomic to mine. The idea was to create and make available a gas which might be used as a fuel without the mining and processing of the coal, a process which the Russians claim to have perfected in the Soviet Union. Thomas W. Martin, president of Alabama Power, backed the proposal immediately and actively, and set into motion the operations which resulted in a series of experiments last year that were termed "promising" but not conclusive.

On the basis of what was determined in the first experiment, preparations are underway on the new project which is scheduled to begin operations in the late fall and expected to last until well into 1949. During these months the experimenters hope to discover: the quantity of coal which can be gasified from a given combustion zone and the shape and extent of the burned out area formed; whether fixed outlets for product gas are practicable, either at vertical bore holes or at the outcrop of the coal bed; the operating characteristics of the installation under a variety of conditions; the quality and quantity of product gas generated with an air blast under experimental conditions and, secondly, the quantity of tar and related products obtained; information on the effect of heat on the overlying strata; and fundamental technical and economic information concerning plant sites, installations and operating processes relative to future usage. Tom Martin, whose interest and active encouragement made the first experiment possible, in the opinion of those who conducted it, will play an equally important part in the work scheduled to get underway in the near future.

The Leader. Roles of prominence and positions of leadership are nothing new to this unassuming Southern gentleman.

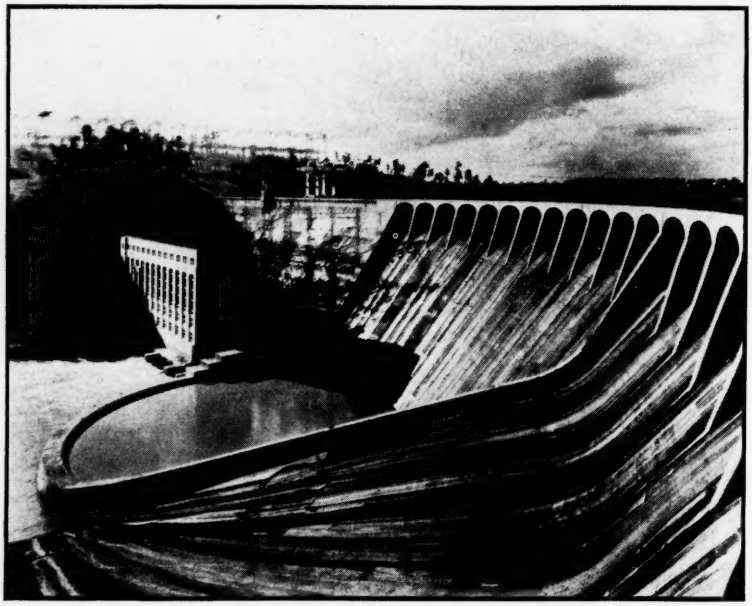


MR. MARTIN stands by while W. D. Partlow, III, puts new line in service.

Born in Scotsboro, Ala., 68 years ago, Thomas Wesley Martin won his first public distinction in 1899 when he received his law degree and Phi Beta Kappa key from Alabama University as one of the top men in his class. From that day to this his work and accomplishments have marked him as an outstanding man. Intelligent hard work is perhaps the key to his success. This implies, of course, seeing what ought to be done and geting it done.

In 1901 he began the practice of law in Montgomery in association with his father. Upon the death of his father in 1907 he joined with the Honorable Massey Wilson, former Attorney General, and the firm of Wilson and Martin was formed. Later the name of Tyson was added when John R. Tyson resigned as Chief Justice of the Supreme Court of Alabama to join the firm. From 1903 to 1911 Martin served as assistant Attorney-General of Ala.

Montgomery to Birmingham. Tom Martin joined Alabama Power Co. as general counsel in 1912 when he was 32 years old and moved from Montgomery to Birmingham. Four years later he was a vice president of the company, and four years after that he was elected president to succeed James Mitchell. In the twenty-eight years that have passed additional weighty titles have been added such as director, chairman Executive Committee, president and general counsel (the latter held throughout the years). Tom Martin has seen his firm grow from little more than the small 200 kw dam and water wheel, at the beginning in 1906, to an organization that posted profits of $6,612,330 in 1947, and planned spending an ad-



MARTIN DAM plant of Alabama Power Co. on the Tallapoosa River 40 miles above Montgomery. Installed Capacity 135,000 H. P., 160 foot head.

ditional $17 million on construction in 1948.

Civic Interests. In addition to his work and problems as president of Alabama Power, Tom Martin has worked unceasingly for a better Alabama. Through his direct efforts some 450 individual companies have settled in his state in the last twenty-five years. One hundred and twenty-five new ones arrived last year. A good example is the Coosa River Newsprint Co. As reported in *Powergrams*, his company's house organ:

. . . Mr. Martin's great business acumen, his long experience in conducting difficult and intricate negotiations and his capacity as a lawyer were always at the command of the committee." These were the remarks of Mr. Donald Comer before the Birmingham Exchange Club.

He was the foremost organizer of the State Chamber of Commerce, of which he is still director, and has served in leading capacities in many other community and public efforts. One of his favorite projects is the six-year-old Southern Research Institute for which he is mainly responsible. This non-profit organization is supported by business and commerce to provide technological facilities for Southern industry. He has been Chairman of the Board of Trustees of the Institute since the beginning.

Recognition. The activities of this historian, author, lecturer and industrial leader have not gone unrecorded. In 1940 the Republic of France made Mr. Martin an officer d'Academic, in recognition of his writings of early French military activities in Alabama called "The Vine and Olive Colony." For this and other historical work he received France's highest recognition to men of letters, arts and sciences.

In 1945 the Chambers of Commerce of Southeast Alabama awarded him a cup inscribed with the designation as "Alabama's Most Useful Citizen."

In 1946, the editors of *Dixie Business* selected him as the "South's Man of the Year."

In 1947 *Forbes Magazine of Business* honored him for being selected through a nation-wide poll as one of the fifty outstanding business leaders in America. The citation that went along with this latter award read as follows: "Head of a public utility corporation who consistently operates it as a true public service, he has won the friendly cooperation of its consumers and, by vigilantly promoting scientific research and economic development and by originating new applications of electric power to factory and farm, he has uniquely promoted Southern prosperity." Tom Martin has done all of this —and is doing a lot more.

W. H. Sullivan, Engineer, Awarded Honorary Degree

W. H. Sullivan, prominent North Carolina engineer and president of the Greensboro Chamber of Commerce, recently received a tribute from his old alma mater.

W. H. Sullivan

At its June commencement exercise, North Carolina State College conferred upon Mr. Sullivan the honorary degree of Doctor of Engineering "in recognition of his notable attainments in the profession of engineering and for his work toward the civic and economic development of his community and state."

Mr. Sullivan is president of the W. H. Sullivan Company of Greensboro and in addition to membership in numerous organizations connected with his profession, has served his city as mayor and as a leader in both local and state civic affairs.

Francis W. Sheppard Named Vice President By Woodward

Francis W. Sheppard, formerly general sales manager of Harbison-Walker Refractories Co., Pittsburgh, Pa., became vice president in charge of sales of Woodward Iron Co., Woodward, Ala., on July 1. Mr. Sheppard was elected by the company's Board of Directors at a meeting held July 1st. He succeeds John B. DeWolf, who recently retired.

A native of South Carolina, of which his father was a former governor, Mr. Sheppard is a graduate of the Citadel of Charleston, S. C. He served for three years as an officer of the Regular Army in World War I, and has subsequently been identified closely with the iron and steel industry through his association with the Harbison-Walker Refractories Co. for the past 26 years. Mr. Sheppard will maintain offices at 1515 First National Bldg., Birmingham, Ala.

Donald Joins Lion Oil As Chief Agronomist

Leroy Donald of Goodman, Miss., has joined the staff of Lion Oil Co. as Chief Agronomist, according to announcement made by T. M. Martin, president. As chief agronomist, Mr. Donald will direct the agricultural activities for Lion Oil Co.

In this capacity, Mr. Donald's duties will be to develop and promote more efficient methods of utilizing fertilizers, particularly nitrogen, as well as new and increased uses for plant foods to the end that higher yields and greater profits may accrue to the farmer. His program of work will be conducted in cooperation with officials of agricultural colleges, experiment stations, state extension services, and state departments of vocational agriculture.

Petroleum Association Appoints R. Korte To Advertising Post

Robert Korte, former account executive with Brooks-Keefe advertising agency of Tulsa, has been appointed advertising manager for the Independent Petroleum Association of America, according to C. E. Buchner, executive manager. With national headquarters in Tulsa, the association of oil and gas operators has membership in every oil producing state.

Mr. Korte, a native Oklahoman, has had wide experience in the advertising and market research fields. He served as public relations officer in the Army Air Forces during the war and upon release from active duty joined the staff of the Tulsa advertising agency. He also served for two years as consultant and research analyst with the firm of Leslie Brooks and Associates, specialists in oil field research.

Southern Alkali Advances Heinemann At Corpus Christi

Gustave Heinemann, since 1934 chief chemist at the Corpus Christi, Tex., plant operated by Southern Alkali Corp., will assume the additional duties of technical director, according to an announcement by O. N. Stevens, operating vice president of the firm.

Prior to his association with Southern Alkali, Mr. Heinemann served as a chemical engineer for four years at Pittsburgh Plate Glass Company's alkali producing plant at Barberton, Ohio.

Equipment Selection And Replacement

By Paul T. Norton, Jr.
Associate Editor

MOST industrial managers find themselves at the present time in a very serious predicament. On the one hand, they generally need new and better equipment in order to pay present high wage rates and still produce at reasonably low costs, and sometimes they must have better equipment in order to produce goods of the quality demanded by their customers. On the other hand, the average manufacturing company is finding it increasingly difficult to finance the purchase of new equipment, because the cost of such equipment has increased so greatly and also because the increased need for working capital to finance inventories and accounts receivable has generally used up all of the available cash, plus all of the money which the management feels it is safe to borrow from the banks. For many reasons, it is very difficult at present to raise equity capital and to most manufacturers of small or moderate size a mortgage loan is something to be avoided at all hazards.

Economic Factors. During the past 25 years, the problem of how to handle the economic factors involved in the selection and replacement of equipment has been discussed in many books and in hundreds of articles in engineering, accounting and trade periodicals. Many formulas have been developed, some very complicated and some very simple, and a large percentage of them containing errors which should become evident the moment the particular formula is broken down into its elementary parts and studied carefully. Fortunately, even the worst of these formulas have done very little harm because the average businessman is suspicious of formulas and other methods he does not understand. However, the problem has become so important and so difficult in recent years that it is no longer safe to attempt to solve the problem intuitively, especially when the available funds are sufficient to purchase only a small portion of the equipment which might be purchased advantageously if there were ample funds.

Investment Limited. Even in more normal times, it is unusual for the average company to have resources sufficient to finance all of the investments which economy studies might indicate would be profitable. Under present conditions, it is essential that there be a sound enough understanding of the problem to insure that available funds are used where they will result in the largest possible savings in real costs.

It it obvious that a replacement which does not result in a real saving, because the reduction in operating costs is less than the increase in investment charges due to the new equipment, is worse than useless. Such replacements consume precious investment funds without helping anyone; in fact, they are doubly bad because they reduce the amount of money available for paying wages without reducing total costs. It is only through reducing total costs that we can widen markets and pay more wages through a greater production of the things the general public wants and needs.

As will be explained in some detail in a later article, economy studies of the sort used in equipment selection and replacement always involve a comparison of two or more methods which may be used to accomplish a desired purpose, which is to produce a desired quantity of a certain product. Ordinarily, the selection problem, a comparison between two or more machines when one does not already have any machine, is somewhat simpler than the replacement problem, because in the latter, it is necessary to consider the costs of *continuing to use* the present asset. Our studies will, in most cases, be replacement studies, because they involve more factors, but from time to time, information will be given to indicate the points of similarity and differences between replacement studies and selection studies.

Much Equipment Obsolete. There can be no doubt that much of our industrial equipment is obsolete and could advantageously be replaced with more modern and more efficient equipment. There is even some evidence that on the average our equipment is more obsolete at present than it was some 20 years ago. There certainly can be no doubt that the rigid policy of the Treasury since 1934, in limiting depreciation rates for tax purposes to straight-line rates corresponding to full service lives, has tended to increase the obsolescence of our national plant.

Effects of Obsolescence. The general public would doubtless be more concerned with the obsolescence problem if there were a more general awareness of the extent of obsolescence in our national plant and if it were more generally understood that everyone suffers from the effects of obsolescence.

Obsolescence in its final and most severe form often forces the closing of an industrial plant, resulting in the loss of their investments by the owners and the loss of their jobs by the workers. But there is another effect, not so generally understood, which concerns everyone.

When the owners of depreciable assets fail to write off investments through depreciation fast enough so that the decrease in book values keeps pace with the decrease in realizable values due to obsolescence, there is a tendency to continue obsolete equipment in use simply because the book value exceeds the realizable value, and there would seem to be a "loss" if the replacement is made. This matter will be discussed at length in a later article in this series, and it will be shown that no consideration should be given to the book value when deciding whether a replacement should be made. Nevertheless, excessive book values (resulting from inadequate prior depreciation charges) do have a tendency to prevent desirable replacements which might otherwise be made.

Depreciation Allowances. Every dollar of additional depreciation allowed on an income tax return means one dollar less of taxible profits, and with present high tax rates, there seems to be no way to avoid the constant battle between the taxpayers who wish high depreciation allowances and the Treasury officials who wish low depreciation allowances. The writer is one of those who believe that it is essential to our economic well-being that investors be permitted to depreciate assets for all purposes more rapidly than is at present permitted by the Treasury.

(*Continued on page* 54)

NEW SERIES

This is the first of four articles on the general subject of Equipment Selection and Replacement, which will be published in sucessive issues. This article will introduce the subject and discuss in a very general way several of the economic factors involved in the problem. Later articles will discuss in some detail the more important economic factors, comment on some of the more frequent errors to be found in the literature of the subject, suggest a simple and economically sound method for making studies, give several examples to illustrate the suggested method, and finally, give a summary of the more important points which have been discussed in the several articles.

This series will be followed during next Winter by a series of articles on Depreciation and Obsolescence, a most important and pressing problem, which in some of its aspects is a part of the problem of selection and replacement.

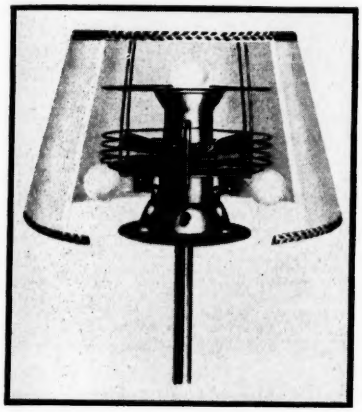
New Products

Fanlamp

The Abbeon Supply Co., 58-10 41st Drive, Woodside, New York City, distributors for Walton Laboratories, Inc., announces production of the Walton Fanlamp.

This lamp is a multi-purpose floor lamp that will give indirect lighting combined with air cooling and circulation.

It operates on sound scientific principles.



Walton Fanlamp

The lampshade acts as a funnel. Cool air is brought up from the floor by a 500 cubic ft. per minute draftless fan, and is mixed with the warmer air in the upper part of the room, giving a cooling effect. This method prevents drafts.

Lifting Magnet

A design development of importance to users of lifting magnets is announced by Cutler-Hammer, Inc., electrical manufacturers, Milwaukee, Wisc. The new capsule-coil construction of the Cutler-Hammer Lifting Magnet encases the coil in an all metal, welded capsule from which all moisture is removed by a vacuum process prior to impregnating the coil with insulating compound under pressure. The coil winding is thus sealed completely against the entrance of moisture.

Plastic Caulking

A jointing material for sealing cracks or openings which form between tile walls and bathtubs has been developed in the Research Laboratory of The American Fluresit Co., Cincinnati 29, Ohio.

Called Tub-Tite, it is a resin-based plastic caulking that comes in a tube, and is recommended for sealing cracks in and around washstands, shower stalls, drinking fountains, show cases, refrigeration and locker units, aquariums, and the like. It will cement linoleum to a wall or sink drainboard, and keep the surface smooth and level. It is also recommended for industrial uses, such as sealing air conditioned rooms, control instruments and explosion-proof motors.

Pneumatic Timer

An A.C. pneumatic timer designed for a wide variety of industrial control timing needs such as machine tools, conveyors, automatic processing equipment, etc., where dependable performance is required, is announced by Cutler-Hammer, Inc., 266 North 12th St., Milwaukee, Wisc., pioneer electrical manufacturers.

The new timer is extremely small in size being 2¾ inches wide by 4⅞ inches high. Its timing adjustment, easily made from the front of the unit with a screw driver, is unusually simple. Eight turns of the screw gives the entire timing range from 0.3 seconds to 3 minutes. Reset of the timer is practically instantaneous.

Wire Markers

A new application of E-Z Code Wire Markers, a self-adhesive identification label that is widely used in the assembly of electrical products, is being used in the construction field to mark electric circuits, according to the manufacturer, Western Lithograph Co., 600 E. Second St., Los Angeles, Calif. These markers are said to eliminate the necessity for costly, high inventories of colored wire and are more convenient than lugging heavy wires of different colors from job to job and between various stations on a job.

E-Z Code Wire Markers are short, narrow strips containing a wide selection of different code designations and are provided on a convenient card. When the desired designation is selected, the user simply pulls a speed tab and the marker is peeled off, wrapped around the wire and adheres fast without moistening.

Rubber Stamp

A rubber stamp designed for heavy duty stamping in all types of factory shops, warehouses, shipping rooms, oil refineries and other places where heavy usages is the rule is now manufactured by Jas. H. Matthews & Co., 4034 Forbes St., Pittsburgh, Pa.

Trade-named "Industrial," these new rubber stamps have been developed for use where conventional office stamps are unable to function efficiently.

Air Motor Power Jack

A new use for the Duff-Norton "Air Motor Power Jack," No. 528RX, has been announced by the Duff-Norton Manufacturing Co., 2709 Preble Ave., Pittsburgh, Pa.

This Duff-Norton jack is used throughout industry for automatic, heavy duty lifting by means of air motor power.

Additional information on No. 528RX jack, and the operating procedure may be secured directly from the Duff-Norton Co.

Fluorescent Luminaire

A two-lamp fluorescent light type CD-80 harmonizing with both modern and conventional architectural interior treatments for school or office use is announced by Westinghouse Electric Corporation, 306 Fourth Ave., Pittsburgh, Pa. Available as a direct-indirect type with steel louvered bottom or as a semi-indirect type with a translucent plastic bottom, the unit is more versatile and can be used for the varied requirements of schools and offices.

Hand Truck

A light-weight, but rugged general purpose hand truck is now available from General Scientific Equipment Co., 27th & Huntingdon Sts., Philadelphia 32, Pa.

According to the manufacturer, the outstanding feature of this hand truck is the two chime hooks, which are adjustable, to lock barrels and kegs of different heights securely in position. Truck is finely balanced so that most of the load is carried on the wheels, thus making it easy to use and handle.

Vacuum Attachments

The Doyle Vac-It "quick change" vacuum attachments have been newly released to the users of the Doyle Vac-It Vacuum Cleaners by the Doyle Vacuum Cleaner Co., 510 Stevens St., S.W., Grand Rapids, Mich.

Now it is possible to change from one attachment to another quickly by a simple twist of the wrist and pull and one attachment is free, ready for a new job with a new attachment. Three second operation converts the Doyle Vac-It from one job to a brand new job.

Attachments are important. In order to get the benefit of the powerful suction developed by the machine, a suction must be applied to the surface to be cleaned with an attachment shaped and designed for that particular cleaning operation. Interchangeability of attachments must be accomplished with extreme ease and rapidity.

Blank Slitter

A duplex body blank slitter has been announced by Lima-Hamilton Corp., 60 East 42nd St., New York 17, N. Y. Known as the Hamilton-Kruse No. 301, the 36-inch machine is designed for plain iron or tin sheets having a maximum thickness of approximately .017 inches. Operating speed of the machine is 50 sheets a minute or slower, depending upon requirements.

Power Truck

A power industrial truck combining a low-lift platform and a crane is announced by Elwell-Parker Electric Co., Cleveland, O. This combination is effective for many load-handling operations in manufacturing, warehousing and shipping.

The crane can pick up a load from floor level and lift it to a hook height of 8 feet, within a radius of 45 degrees either left or right from base. Its shape and mechanism provide means for reaching, high-stacking or taking down raw materials or finished products in such form or package that may be handled with rope or cable slings.

Fire Extinguishers

American-LaFrance-Foamite Corp. of Elmira, N. Y. is announcing a complete line of 2½ gallon resistance welded silicon bronze fire extinguishers to replace riveted and copper fabricated units of the same capacity. They are Soda-Acid; Foam; plain Water; and Anti-freeze Water types.

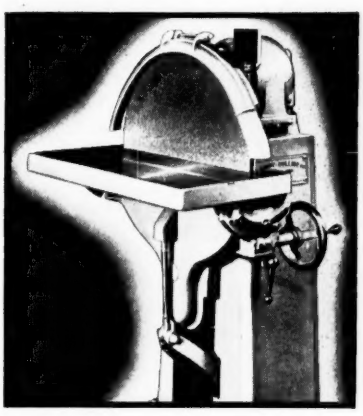
Air Hose

The development of Condor Homo-Flex Heavy Duty Air Hose for hard service encountered in mining and quarry operations has been announced by Manhattan Rubber Division, Raybestos-Manhattan, Inc., Passaic, N. J.

This addition to Manhattan's Condor Homo-Flex Hose line can also be used to advantage in other air service requiring a super-tough type of hose.

Disc Grinder

The Kindt-Collins Co., 12653 Elmwood Ave., Cleveland 11, Ohio, announces a 24" MASTER Disc Grinder, said to have the most advanced



Master Grinder

design features in the industry.

This 24" Master disc grinder is made vibrationless through perfect balancing which permits extreme accuracy in grinding. It is quickly and easily adjusted by means of a counterbalanced table, which can be moved up or down 11" by hand pressure to any desired position.

New Products

Airplane Finish

Regal Air Corp., 318 W. 39th St., New York has placed on the market a finish that provides a protective coating to aircraft surfaces and at the same time imparts a high gloss.

Known as "ReGlo," the finish is a clear solution that is sprayed over metal and fabric to form a hard but flexible transparent film that lasts up to twelve months. It protects the surface from abrasions, corrosion, weathering, stains and the like. It dose not chip, peel, bubble or crack and is highly resistant to scratching and denting, say the makers.

Stencil Machine

Marsh Stencil Machine Co., Belleville, Ind., is offering an electric machine designed to cut stencils in oiled stencil paper or plain cardboard. The unit is available in three character sizes, one-half, three-quarters and one inch.

All rotating parts are made of Alcoa Aluminum alloy. The three rotating parts—die carrier, punch carrier and hand wheel—weigh a total of 16 pounds in aluminum as against 48 pounds in cast iron, state company officials.

Hose Coupling

Bar-Way Manufacturing Co., Stamford, Conn., has announced production of a one inch streamlined high pressure hose coupling to meet the demands of fire equipment and fire fighting manufacturers.

It comes in two models: to fit hose with outside diameter sizes of $1\frac{1}{2}$ to 1-9/16 inches. Both are available in national standard chemical thread.

Heretofore the coupling of fire equipment and in the spraying fields was offered in $\frac{1}{2}$ and $\frac{3}{4}$ inch inside diameter sizes only. It will withstand pressures of over 3000 pounds per inch with a pull of over 500 pounds.

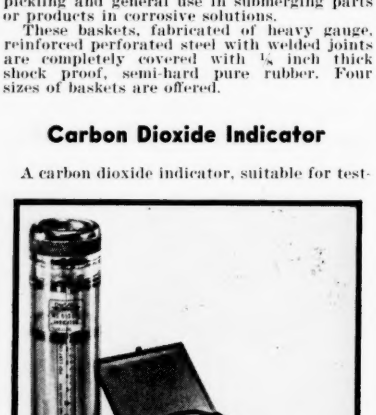
Dipping Baskets

Automotive Rubber Co., 8601 Epworth Blvd., Detroit 4, Mich., has announced a standard line of insulated baskets for dipping, pickling and general use in submerging parts or products in corrosive solutions.

These baskets, fabricated of heavy gauge, reinforced perforated steel with welded joints are completely covered with $\frac{1}{8}$ inch thick shock proof, semi-hard pure rubber. Four sizes of baskets are offered.

Carbon Dioxide Indicator

A carbon dioxide indicator, suitable for testing the efficiency of oil burners, furnaces, and other heating plants, has recently been announced by the F. W. Dwyer Manufacturing Co., 317 Southwestern Ave., Chicago, Ill. Featuring simplified construction and quick-acting readings, the new instrument is said to afford the highest possible accuracy at moderate cost.



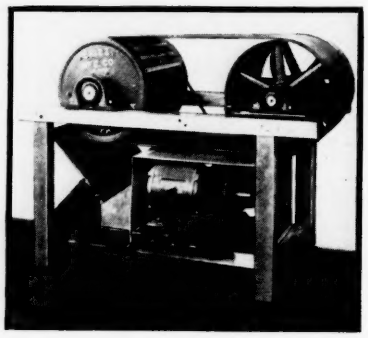
F. W. Dyer Indicator

Magnetic Pulley

A type of magnetic pulley produced by the Eriez Manufacturing Co., 126 E. 12th, Erie, Penna., is known as the "Puri-Pulley."

The unit is non-electric and was developed to remove fine iron or less magnetic particles and afford automatic separation of ferrous from non-ferrous material ranging in size from ten to two hundred mesh.

While present magnetic pulleys are built to throw a magnetic field out several inches (for the removal of ordinary tramp iron), the "Puri-Pulley's" strength is concentrated in close to the face plate. At one inch from the pulley's surface, the magnetic field is said to be approximately three times as strong as a standard pulley.



Puri-Pulley

Hydraulic Pump

LYON-Raymond Corp., 5928 Madison St., Greene, N. Y., have designed a package type hydraulic power unit that will deliver $1\frac{1}{2}$ gallons of oil per minute and develop a pressure of 1000 p.s.i.

Compactness has been made possible by the use of a flange mounted motor which is placed directly on top of the oil reservoir. Although the reservoir has an oil capacity of $2\frac{1}{2}$ gallons, the entire pump assembly is only $18\frac{1}{4}$ inches high by $12\frac{1}{2}$ inches in diameter.

The unit is furnished with all controls. It is ready for operation as soon as the pressure line is connected and the electric cable is plugged into a standard outlet. Since all controls are electric, the pump can be operated from remote positions if desired.

Detergent-Dispersant Oil

A detergent-dispersant oil designed especially for light aircraft engines and perfected after six years of research into the problems of horizontally opposed aircraft engines has been announced by Gulf Oil Corp.

To be available generally by mid-summer, this heavy duty type lubricant, named Gulfpride Aviation Oil—Series D, is designed to decrease operating and maintenance costs, and to give greater engine reliability.

The oil, which is recommended only for horizontal engines in light aircraft, is a full detergent-dispersant product that is formulated to clean dirty engines and to keep them clean, to free sticking valves and rings, and to maintain maximum engine cleanliness.

Saw V-Belts

A V-belt, designed especially for portable power saws used in pulpwood felling operations and in clearing underbrush, has been developed by Goodyear Tire & Rubber Co., Akron, Ohio.

Called the Pulpwod Saw V-belt, the new product has been tested by manufacturers and users of power saws, and it is claimed that results indicate an operating life up to 100 per cent longer than conventional belts.

On the latest type portable saws the blade can be operated either horizontally to hew trees and clear brush close to the ground, or vertically to cut the felled logs.

Annunciator

Specifically designed for heavy-duty operation in industrial plants and public utilities, the versatile new Autocall type "ANG" Annunciator manufactured by the Autocall Co., Shelby, Ohio, is a unit which may be incorporated in new or existing control panels, actuator boards, racks, or power operators' desks in a minimum of space. The "ANG" may be mounted horizontally or vertically, and may be made up of as 1 x 1" engraved Lamacoid designations or "windows" as desired.

The "ANG" is designed to operate on standard voltages: 24, 48, and 125 volts A.C. or D.C., and is factory-tested at 1,000 volts A.C. plus two times the rated voltage for one minute to insure reliability in operation.

Floor Machine

An improved American DeLuxe Floor Maintenance Machine designed with a "Safety Grip" Handle, and other mechanical improvements, is announced by the American Floor Surfacing Machine Co., Toledo, Ohio. The machine is neat and attractive in appearance with highly polished aluminum castings throughout. It is available in three sizes, including 13, 15 and 17 inch brush spread.

Some outstanding features of this new machine were incorporated in American polishers supplied for several years to U. S. Naval hospitals, and are now released for general use, company officials report.

Die-Machine Files

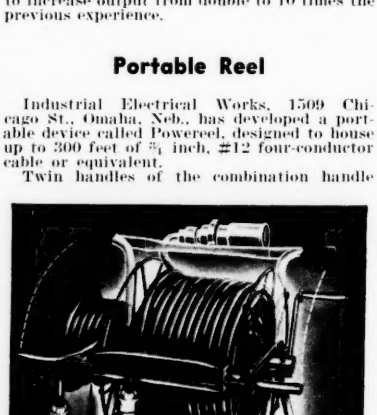
Severance Tool Industries, 637 Iowa St., Saginaw, Mich., claim that with their Severance Ground Carbide Die-machine Files it is now possible to make alterations or corrections on hardened dies without the risk involved in annealing and rehardening.

It is said that these ground Carbide files finish faster than the un-ground type and will outlast scores of carbon files on the usual run of operations. They can be used in die-making, finishing parts, templets, production pieces, toys, and on most any material where a relatively straight surface is to be worked. When used on production parts it is possible to increase output from double to 10 times the previous experience.

Portable Reel

Industrial Electrical Works, 1509 Chicago St., Omaha, Neb., has developed a portable device called Powereel, designed to house up to 300 feet of $\frac{3}{4}$ inch, #12 four-conductor cable or equivalent.

Twin handles of the combination handle and cord guide make two-man carrying of heavy cable easy work. A special feature of the frame is the use of the tubular steel supports as sled runners to facilitate passing the reel in and out of trucks, etc. Since the runners are at right-angles to the direction of rotation of the reel, it has no tendency to slip as the cable is unwound.



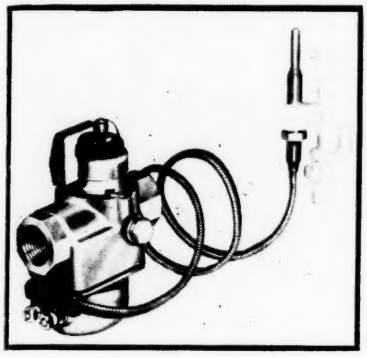
Portable Powereel

New Products

Gas Control Unit

The General Controls MR-2-5 manufactured by General Controls Co., Glendale 1, Cal., is an all-in-one, simplified, on-off and safety shut-off control unit designed particularly for floor, central, small space and water heaters.

Flow of all gas automatically stops when the pilot is extinguished. During the reset operation, gas flows to the pilot burner only. No gas can pass to main burner until the



General Controls MR-2-5

pilot is ignited and the safety valve set in the operating position.

The operator can then set the single handle control for any desired gas flow to the main burner. The handle is designed to permit setting of the safety valve without moving the gas cock from the closed position.

Thermal Load Relay

A new relay that makes automatic the safe loading of power transformers to their full thermal capacity is announced by Westinghouse Electric Corporation, 306 Fourth Ave., Pittsburgh, Pa. Actuated by a bimetal mounted in a well in the transformer wall in the top oil zone, the new type TRO relay continuously evaluates the hottest-spot temperature of the copper windings to operate three snap-action, self-resetting switches. The first switch operates with increase of transformer load to start cooling fans. If load increases and approaches the safe thermal operating limit, the second switch closes to give a warning. If load continues to increase until the thermal limit is reached, the third switch either trips the breaker or gives an alarm.

Registering Machine

A machine for registering and mounting corrugated box rubber printing dies which are said to make present methods obsolete has just been placed on the market by Jas. H. Matthews & Co., 4034 Forbes St., Pittsburgh, Pa.

This machine, called Opti-Chek, utilizes a special optical device which completely eliminates all trial-and-error operations in the registration of two-color dies and cuts mounting time from hours to minutes. No press is necessary for registering, mounting or pulling color proofs.

Oven

Development of a "Dri-Temp" oven for pre-heating preforms, usually regarded as a complicated and costly operation in the production of plastic parts, is reported by the Plastics Research Products, Urbana, Ohio. The new oven was designed and is manufactured by the Defiance Machine Works, Defiance, Ohio.

Although steam pre-heating is old, the method employed by the "Dri-Temp Oven" is said to be entirely new—the preforms do not come into contact with steam at any time during the pre-heating process, so that moisture is removed rather than added to the molding compound.

Soldering Iron

Kemode Manufacturing Co., 2 W. 46th St., New York announces a soldering iron that requires no electrical current or external heat of any kind. This iron utilizes a chemical cartridge that heats it to working temperature in five seconds and maintains intense heat for fully ten minutes.

Used for all kinds of outdoor work where blow torches are ordinarily required, the iron is convenient for indoor work in home or plant because of its freedom from the need to work near electrical outlets. A new cartridge is used each time the iron is operated.

Undercoating Remover

Phipps Products Co., 30 Huntington Ave., Boston 18, Mass., has announced a product to soften automobile undercoating so that it can be scraped off with a putty knife.

Called "Kwik-Sol" it will soften undercoating in six to seven minutes, state company officials. This item eliminates the use of the blow torch, often used to remove the car's undercoating, a dangerous practice because undercoating (a chassis and part preserving compound) is inflammable, the makers point out.

Camphene Production

The Glidden Company announces the volume production of camphene by its Naval Stores Division at Jacksonville, Florida.

Camphene is produced in large volume as an intermediate in the production of synthetic camphor but previous to Glidden production it was generally available only as an expensive laboratory curiosity. Now that camphene is available in carload and tank car volume it is expected that other uses will be developed for this reactive terpene in the synthesis of novel and useful products.

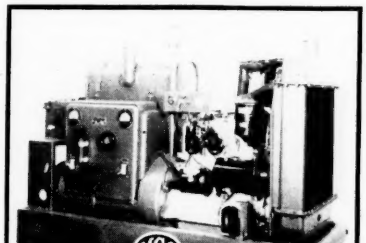
Plastic Vials

Transparent plastic vials claimed to have definite advantages over glass ones were announced recently by Cellu-plastic Corp., Newark, N. J. This type packaging is commonly used in the drug, cosmetics, tool and musical instrument accessory fields.

The new plastic vials offer packagers crystal-like transparency or gem-like colors as well as rigidity and greater durability than glass containers. At the same time it is possible to mold-in the labels in the original operation.

Magnet Generators

A complete line of gasoline engine driven generators to supply power for handling scrap



MGC Generators

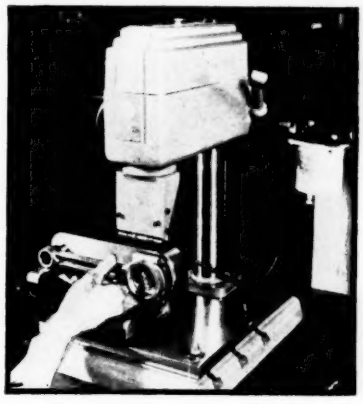
or pig iron with magnet cranes is being announced by Motor Generator Corp., Troy, Ohio.

These magnet generators are available in six sizes, ranging from 5 KW to 25 KW. They are compact, light in weight and are without canopies for easy installation in crane operator's cab.

Marking Machine

Cadillac Stamp Co., 2138 Riopelle St., Detroit 7, Mich., has developed the Automatic Marking Machine, designed for fast, low-cost marking on light and medium heavy parts.

It is claimed that the machine will mark effectively on steel, iron, brass, aluminum, bakelite, plastics, leather, and wood. It is said to be adaptable to burning brand applications



Cadillac Marking Machine

and gold and color leaf marking on a production basis. Suited for light forming and piercing operations, it is extensively used in plants for assembly work consisting of pressing, staking, crimping, and light riveting.

Vinyl Plasticizer

Availability of a vinyl plasticizer of the phosphate type was announced here today by Monsanto Chemical Company, St. Louis 4, Mo. Known as Santicizer 141, it is specifically designed as a primary plasticizer for polyvinyl chloride and polyvinyl acetate film, sheet or molded articles.

"Santicizer 141 is outstanding because of its combination of desirable characteristics," J. K. Craver, the company's plasticizer coordinator, said. "It is an efficient, flame-resistant, non-toxic plasticizer with excellent low-temperature flexibility and non-volatility."

Precision Camera

Development of a precision camera for testing exact qualities of new lens formulas was recently designed by Bausch & Lomb Optical Co., Rochester, N. Y. The camera is used for testing all types of photographic lenses ranging from the tiny home movie type to eight-inch focal length telephoto lenses.

Absolutely rigid in construction, the camera maintains parallellism between the film plane and lens board to within five 10-thousandths of an inch, or about one-sixth the thickness of a single sheet of paper. A micrometer focusing device controls focusing to the same degree of accuracy, although the camera is equipped with both coarse and fine adjustments. A built-in microscope assists critical focusing, while a lock holds the camera in the exact focusing position selected.

Liquid Wax

A liquid wax for use as a lubricant in the manufacture of metal items by the impact extrusion process has been developed by S. C. Johnson & Son, Inc., Racine, Wisc. It is being marketed as Johnson's LW #20 Wax.

In impact extrusion a waxed metal slug is placed in a die and struck a single, hard blow with a punch, causing the metal to flow out of the die and shoot up the sides of the punch to form a perfect tube. Typical articles produced by this process are collapsible tooth paste and shaving cream tubes and condenser cans.

New Products

Air Hose

A Highflex air hose for small tools which weighs less than half as much and is stronger than the ordinary hose used in this service is announced by The B. F. Goodrich Co., Akron, Ohio.

The hose is as flexible as a lamp cord because of its light weight and other construction features, the company says. Its cover is an attractive red with high visibility.

Hand-Knitting Yarns

Nylon hand-knitting yarns for sweaters and socks, made of 100% duPont nylon staple, will be placed on the retail market in the near future by James Lees and Sons Co., Bridgeport, Pa.

Lees new nylon yarn line will be in 17 colors when it goes to the retail dealers this Summer. These nylon staple yarns, recently developed by Lees, have a wool-like appearance, plus advantages not found in nature's fleece.

Rock Bits

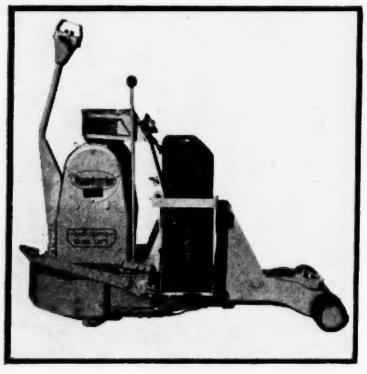
Kennametal, Inc., Latrobe, Penna., announces the development and availability of a series of chisel type rock bits which can be screwed on standard drill rods. These new bits are offered in the six sizes of 1⅜-inch, 1½-inch, 1⅝-inch, 1¾-inch, 2-inch and 2¼-inch. They feature new construction throughout. The threads inside the body of the bit screw on steels that have F threads, H threads, and D threads; providing a shouldered contact between the bit body and the drill rod.

Insert Roll Die

A new-style Insert Roll Die for marking copper or brass pipe and tubing is now being manufactured by the M. E. Cunningham Co., 230 E. Carson St., Pittsburgh, Pa. Identified as the "Kop-R-Tube" Insert Marking Roll, it can be furnished for use in marking machines or in standard coiling machines used for coiling the copper tubing. It is grooved to suit the size of tubing to be marked, and is equipped with a recess slot for changeable marking die inserts.

Electric Truck

Modern materials handling methods now are available for users of live and semi-live skids, following the announcement of this special Transtractor by the Automatic Transportation Co., 149 West 87th St., Chicago. This unit is built around the chassis and driving unit used on the famed electric powered Automatic



Transtractor Unit

Transporter pallet and platform trucks, and the Transtractor push-pull unit. The truck, said to be the first and only successful powered machine which handles live and semi-live skids, provides: full driving traction when lifting heavy loads; maneuverability virtually equal to that of a hand lift jack; and capacity to handle skid loads of literally any size.

Soluble Alkyd

Aroplaz 1081-M, a Mineral Spirits soluble alkyd, compatible in all ratios with most melamine and urea resins, has been introduced by U. S. Industrial Chemicals, Inc., 60 East 42d Street, New York City 17.

This high viscosity, pure oxidizing medium-oil-length alkyd, for application by brush, dip, or spray, can be used advantageously for industrial baking finishes, either alone or in combination with amine resins. It can be baked or air-dried without amine resins for industrial goods and general utility finishes.

Industrial Air Circulators

A line of commercial and industrial alternating-current air circulators in 24 and 30-inch sizes with four styles of mounting accessories including floor column, counter column, ceiling and wall bracket, is announced by The Emerson Electric Mfg. Co., St. Louis, Mo.

In addition to a new and more colorful design and finish, these air circulators offer a 98° range of adjustment to direct breezes where required. The floor and counter column mounted air circulators may be adjusted to any position between 8° below horizontal to a vertical position, blowing straight up.

Coated Welding Rods

The manufacture of flux coated welding rods by Eutectic Welding Alloys Corp., 40 Worth St., New York 13, N. Y., has been improved chemically and metallurgically by allowing for a greater and thinner flow of the joining alloy. This rapid flow insures capillary action, smoother welds, protects the weld area from over heating and minimizes the possibilities of distortion and stress to the parent metal.

Assembly Nuts

A Speed Nut which permits complete bench assembly of a cooking range oven door has been developed by Tinnerman Products, Inc., Cleveland. It is said to speed up range assembly and cuts assembly costs by permitting a complete door to be carried to the range and quickly attached. Two speed nuts are used on each door.

In assembly, the speed nuts, which house the hinge pins, are first fastened loosely to the door liner with the hinge pins passing through holes in welded support brackets. The slotted holes in the liner permit the hinge pins to be drawn inward to give clearance for positioning of the door in the range.

Water-Emulsion Wax

A water-emulsion wax that is now being used as a rust-inhibiting coating for metals has been developed by S. C. Johnson & Sons, Inc., Racine, Wisconsin. It is being marketed as Johnson's Rust-Inhibiting Wax No. 1568.

Applied by conventional dipping, spraying, wiping or flow-coating, this emulsion forms a dry wax plating on the metal part that checks corrosion. It is non-flammable and non-toxic and gives high coverage of between 2500 and 3000 square feet per gallon . . . can be readily removed by degreasing if desired.

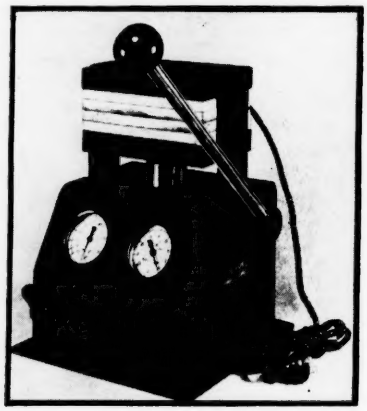
Box Segregator

Containers in varying sizes, brands, grades, or colors can be systematically sorted into individual groups, regardless of their original order, by the FMC Automatic Segregator, a development of Food Machinery Corp., Riverside, Calif., for use in packing houses, canneries, railway terminals, post offices, warehouses, and industrial assembly lines.

As used in packing houses, all segregating is done by one operator. Boxes in single file are fed onto the segregating line by a feed conveyor. Near the receiving end of the line is a control zone through which each box must pass. Here is the operator's station. The operator makes his visual selection, then presses the button controlling the automatic sorting of that particular classification. The equipment then automatically diverts the box to its proper conveyor line, stocker, or storage space.

Hydraulic Press

A compact, hand-operated portable hydraulic press for laboratory or production work is introduced by Studebaker Machine Co., 1221 South 9th Ave., Maywood, Ill. Optional with the unit are electrically heated platens for plastics or other operations that require tem-



Hand Operated Press

peratures. Heating element is thermostatically controlled for even distribution of heat over entire platen.

Hand Pumps

Three new models have recently been added to the Bowser rotary hand pump line, according to an announcement by the Industrial Pump Division, Bowser, Inc., Fort Wayne, Ind.

One is a 10 g.p.m., crank-operated barrel pump equipped with a 7½-inch diameter drip pan cast integrally with the bung attachment.

A similar model has added a meter with 4½-inch, 8 gallon dial is mounted between the pump and spout. The meter measures the quantity pumped and has a totalizer reading to 9,999 gallons.

The third unit is a 10 g.p.m., crank-operated barrel pump with 4½-inch, 8-gallon dial meter mounted between the pump and spout.

Centrifugal Pump

A self-powered Model FZZ centrifugal pumping unit announced by the Hale Fire Pump Co., Conshohocken, Pa., meets the need for a portable general-purpose unit for numerous applications requiring dependable, efficient operation.

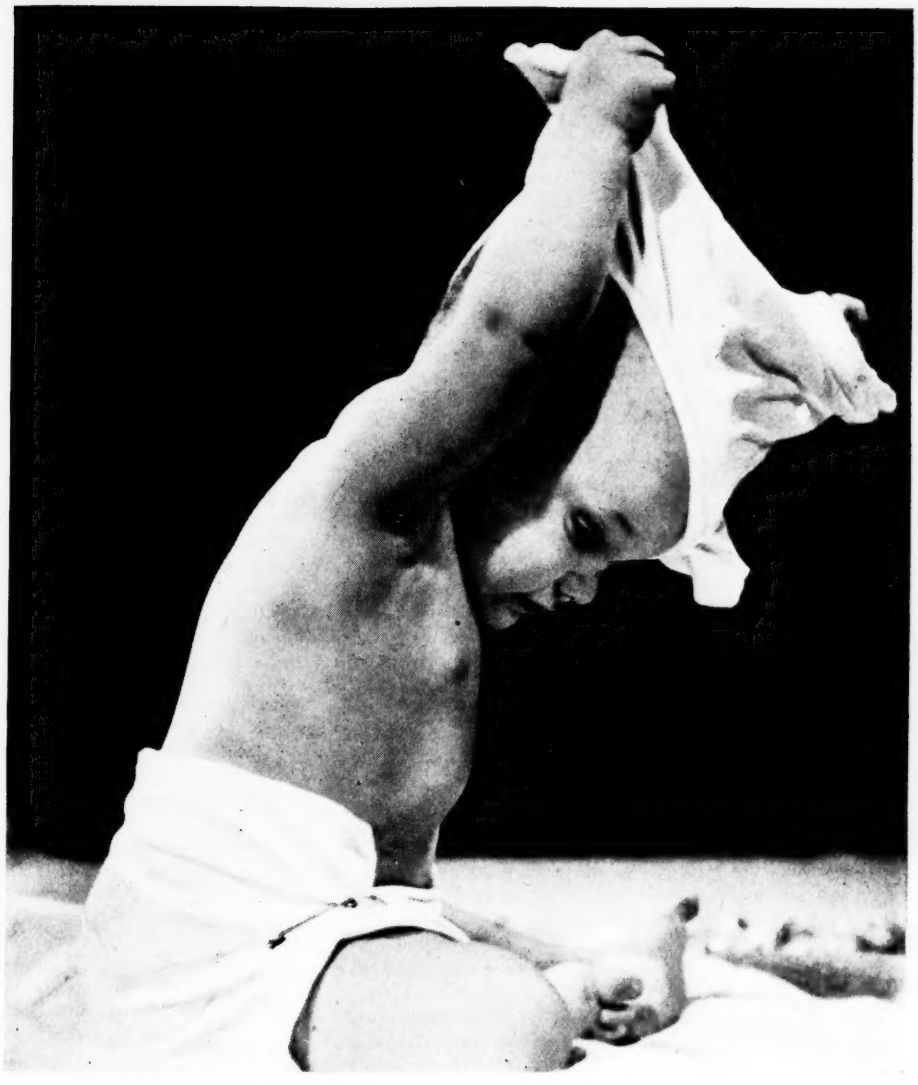
Nylon-Coated Wire

Rochester Ropes, Inc., Culpeper, Va., has gone into commercial production of "Wirelon," a nylon-coated wire rope. Product-wise, the possibilities of Rochester Wirelon include automotive brake and speedometer cable, aircraft control cables, sash cords, agricultural and earth-moving machinery, artificial limbs, typewriter carriage returns, textile machinery, fishing lines, and others running from grain-cleaning equipment to slim, crystal-like dog leashes and swank luggage handles. Wirelon will be available in diameters ranging from 1/32-inch to 1-inch or greater.

Foot-Pedal for Fork Trucks

Foot control of speeds is now standard on all Clark electric battery-powered Carloader model fork trucks, according to announcement by J. H. W. Conklin, sales manager of the Industrial Truck Division of the Clark Equipment Co., Buchanan, Mich.

Placed for left-foot operation, the pedal has four control positions for the different speeds. The driver's right foot operates the brake pedal.



We've outgrown the old size, too

The telephone facilities that seemed big enough before the war are not nearly big enough for now. So we've been hard at work on our biggest expansion program.

Just in the past year, we started work on 1500 new telephone buildings or additions to present buildings. In the three years since the war, we've added nearly 9,000,000 new Bell telephones. And still more are needed!

It shows how the Telephone Company must keep growing to meet your needs. To serve a nation like ours, the Bell System can never be too big.

We're going full speed ahead with this expansion program so that everybody, everywhere, can have more and better telephone service than ever before.

BELL TELEPHONE SYSTEM

Equipment Selection

(Continued from page 48)

Unfortunately, so few taxpayers seem really convinced of the economic soundness of their pleas for greater depreciation allowances that it has not been possible to convince the Treasury officials that it is not economically sound to limit depreciation allowances to those calculated by the straight-line method, with rates based on full service lives.

As inadequate depreciation allowances produce apparent profits that are higher than true profits, it follows that they also result in taxes that are really capital levies. Futhermore, the Treasury naturally wishes to increase personal income taxes by forcing out as much as possible of the apparent profits, which remain after corporation taxes, in the form of corporate dividends. Under Section 102, the Treasury has great power over the amount of dividends paid by corporations, and it may not be possible for a corporation to protect itself even to the limited extent of retaining in its own treasury those sums which it believes were the result of inadequate depreciation allowances.

Thus the present rigid policy of the Treasury may easily prevent certain companies from being able to make replacements that are clearly desirable, simply because past depreciation allowances have been reduced by the Treasury to such an extent that much of the gross income which was merely a return of capital has been paid out in taxes and dividends.

Unfortunately, we do not seem to learn from past experience when considering the effects of our present depreciation tax policy, even though it is definitely to the selfish interest of the taxpayer to do everything he possibly can to change the present practice. Nearly everyone familiar with the migration of such industries as the textile industry seems to believe that an important reason why the older regions lost so much of their earlier supremacy was the failure of the industrial concerns in these older regions to recognize the obsolescence in their plants. It would be a national tragedy if our failure to read this part of history correctly, plus the natural desire of the Treasury to collect the maximum amount of taxes, should bring us to the point where private industry is bankrupt and is unable to replace its obsolete equipment.

Extent of Obsolescence. There seems to be a rather general feeling in industry that there is much obsolescence in our industrial plant, but there does not seem to be any way that the extent of such obsolescence can be measured with any degree of definiteness. There are, however, certain available data which may be helpful in the study of the amount of obsolescence.

Treasury regulations provide that any reasonable method may be used by a taxpayer in charging depreciation on his income tax returns, but there seems to be no doubt that since 1934, the average taxpayer has had great difficulty in obtaining approval of rates greater than those shown in "Depreciation Studies," published by the Treasury in January, 1931, and revised in the January, 1942 issue of Bulletin "F." (The rates and lives in these publications and in practice are really reciprocals because of the common practice of using the straight-line method with rates based on these estimated full service lives.)

Life of Asset. No attempt will be made in this article to compare all of the rates and lives in the Treasury publication of 1931 and 1942, but it does seem significant that for equipment used in the metal products and processes industries, the simple average of the 222 lives shown in the 1931 publication was 16.3 years, while the simple average of the 226 lives shown in the 1942 publication was 19.5 years, an increase in average life of almost exactly 20 per cent. (While not exactly the same in the two lists, the items seem to be nearly enough the same to make this comparison a fair one.) If it were possible to obtain a weighted average, the increase in the lives shown for equipment in these industries from the 1931 publication to the 1942 publication might be even greater than 20 per cent, as the increase in the lives given for many of the more important items, such as grinding machines, lathes, planers, screw machines, shapers, shearing machines, slotting machines, and upsetting machines is considerably more than the 20 per cent average for the entire list.

Treasury Policy. It should be remembered that it makes no difference in the Treasury calculations whether a machine retired at the end of a life of say 30 years has been more or less obsolete for many years, or used only for stand-by service for many years. The Treasury is interested only in actual lives and assumes that an asset is just as able to earn its investment in its last year of life as it was in its first year of life. The Treasury practice considers obsolescence only when obsolescence causes retirements, but neglects completely the effect of obsolescence in reducing value during life, a much more important factor, because a machine often becomes unable to earn any part of its investment long before it is economical to replace it. (This will be explained in detail in a later article in this series.)

If we assume that the publication of each of the Treasury's lists lagged only a year or so behind the data on which the lives shown were based, we note that most of the 11 years between the two publications were years of extreme depression, during which the production of various kinds of equipment was much below normal. Not only was there very little replacement during those years, but in addition, there was very little retirement, because most companies had no particular reason for retiring equipment even if, at the moment, they were not able to use it; in this depression period they did not need the space occupied by the idle equipment and presumably they continued to hope that business would improve to such an extent that they could again use the idle equipment profitably. They certainly did not imagine that the mere fact of keeping the idle equipment might cause the Treasury publication of 1942 to show that the average lives of their equipment increased some 20 per cent as compared with the lives shown by the 1931 publication, thus resulting in a tax penalty.

The average lives published by the Treasury are probably correct enough, but it seems reasonable to assume that most, if not all, of the increase in the lives shown in the 1942 publication was the result of our failure to retire assets during the long depression as soon as we should certainly have retired these assets if there had been any reasonable expectation that their replacement would show a profit. This certainly seems to be a good example of those vicious economic cycles, in that any obsolescence which once gets started for any reason whatever feeds upon itself, and becomes worse and worse. There seems to be only one way to cure this economic malady: both the taxpayers and the Treasury must become convinced of the inherent unsoundness of limiting depreciation allowances to those calculated by the use of the straight-line method, with rates based on full service lives.

Inventories of Metal-Working Equipment. Not all equipment that is over 10 years old is obsolete, but those familiar with the continuous improvements being made by equipment manufacturers and the changes in the requirements of the equipment-using industries themselves, will probably agree that equipment more than 10 years old may reasonably be suspected of being at least partly obsolete. Such equipment can hardly have the same ability to earn its investment as it had when new, in spite of the fact that the Treasury depreciation tax practice assumes that it can.

Beginning in 1925, the AMERICAN MACHINIST has made inventories of metal-working equipment each five years to determine the percentage of such equipment that was over 10 years old. The results have been 44 per cent in 1925, 49 per cent in 1930, 66 per cent in 1935, 72 per cent in 1940, and 38 per cent in 1945, although the figure for 1945 would have been 54 per cent if government-

owned machines had been excluded.

The greater percentage over 10 years old in 1938 as compared with 1925, even after five years of prosperity, was probably due to the fact that many of the large number of machines purchased during the first world war period between 1915 and 1920 were still in service in 1930 and were less than 10 years old in 1925, but more than 10 years old in 1930.

There can be no doubt that the great depression of the 1930's was the cause of the great increase in the percentages over 10 years old in 1935 and 1940. Certainly a national plant with 72 per cent of its metal-working equipment over 10 years old must in 1940 have been a mighty obsolete plant. A depreciation tax practice based on the ability of these old machines to earn full annual depreciation does not seem to make much sense, even if it is based on the actuarial life studies of the Treasury.

Many of these ancient machines did yeoman service during the late war and it certainly was better to have them in service than to have been without them during the period when we were building and equipping our great war plants. However, unless the writer is mistaken about the way the Treasury makes its life studies, the failure to retire these machines during the long depression and their use during at least the early part of the late war, will continue for many years to give average lives which are real enough mathematically but very unsound economically as a basis for setting depreciation rates.

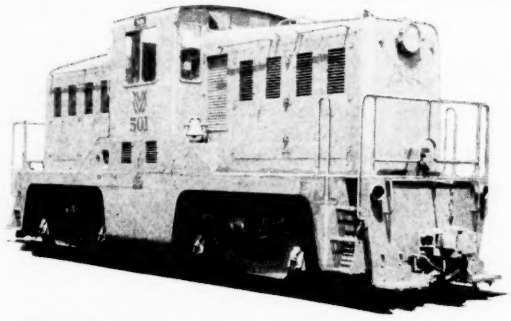
Premature Retirements. It has been demonstrated earlier in this article that present Treasury depreciation practice has a tendency to prevent the replacement of obsolete equipment which should be replaced, and probably would be replaced if the owners had been permitted to recover their investments tax-free during the period in which the assets were able to earn their investments.

Paradoxically, present practice also has a tendency to cause the premature retirement of assets which might well be kept for desirable stand-by purposes if it were not for the tax penalty involved in keeping them. This tendency has apparently not developed to any great extent up to the present time, because few taxpayers realize the full implications of the Treasury depreciation practice, including the fact that the best way to get the largest possible depreciation allowances on income tax returns is to retire assets at the earliest moment possible.

If it had been understood during the depression that there was a severe tax penalty involved in retaining stand-by assets, doubtless much of the equipment among the 72 per cent which the AMERICAN MACHINIST found to be more than 10 years old in 1940 would have been retired well before that time. There could hardly be a greater economic crime, or a greater blow to our defense potential, than the retirement of equipment merely because there would be a tax penalty if it were retained for possible, but not too probable, future service. Consider the 50 over-age destroyers which we turned over to the British navy during the late war and which they so desperately needed. They would long since have been scrapped if they had been private property and their owners had understood fully the implications of the Treasury depreciation practice.

Replacement Through Planning. In spite of our present sorry state with regard to the depreciation problem, there is reason to feel encouraged about the future because there are indications that more and more companies are beginning to realize the advantages of having definite replacement plans. If we can once get away from the idea that equipment should be purchased only in times of extreme demand for one's own products, we may have some hope of evening out to some degree the great peaks and

(*Continued on page 56*)



IF YOU DESIGNED YOUR NEXT LOCOMOTIVE . . . WOULDN'T IT LOOK LIKE THIS?

Pleasing proportions, graceful lines or massive beauty are not the basic reasons why Whitcomb Locomotives are so much in demand for intra-plant hauling and switching. But these characteristics are not objectionable, especially when beneath the good looking exterior you'll find the finest Diesel power plants and electrical equipment that engineers have yet developed. Two powerful engines conservatively rated, generators, traction motors, radiators, every part functioning perfectly in close coordination with the other parts to form a perfect whole. And finally when the WHITCOMB name plate is attached you can be sure there is no finer locomotive for its weight on the rails.

The economies made possible by definite savings in operating and maintenance costs will, within a short time, reduce the purchase price to the point where you will no longer be paying for a locomotive—but making a profit on one.

THE BALDWIN GROUP

THE WHITCOMB LOCOMOTIVE CO.

ROCHELLE, ILL.

Subsidiary of THE BALDWIN LOCOMOTIVE WORKS

Equipment Selection

(*Continued from page 55*)

valleys in his own production which have always been so difficult for the equipment manufacturer and indirectly for his customers.

Value of Planning. A more or less continuous replacement of his equipment through some rather definite plan would help a manufacturer have a modern plant at all times. He would have the modern equipment with which to meet competition when business was below average and be ready for the upturn in business from the moment it began. He would certainly have a great advantage over those competitors who waited for the upturn to develop before buying new equipment, and who sometimes might not actually get the new equipment into operation until after business had again turned downward.

The next article in this series, to be published in our September issue, will continue the discussion of the economic factors involved in the selection and replacement of equipment, including such factors as the time within which new equipment should be expected to pay for itself, the way in which the cost of new equipment should be charged into the cost of the products of the equipment, the way that any undepreciated balance should be handled in economy studies and upon the retirement of equipment, and the way an investment should be charged with the minimum attractive rate of return, often called interest.

Basing Point Decision

(*Continued from page 41*)

also, that new steel finishing plants will be added which would round out the South's list of home-produced steel products.

Temporarily, severe hardships are in store for some steel consumers in the South, as a result of the dropping of the basing point system. Where consumers bought steel from the north, or even from distant mills in the South, freight costs will be passed on to the consumer.

Competitive Relationships Upset

Furthermore, competitive relationships will be thrown out of balance. A steel consuming plant in Alabama, located near a steel plant, may have to pay little more for its steel, whereas a competitor, located in the same state, who has bought the same steel product from a Pittsburgh area mill will have to pay several dollars a ton in freight costs.

This situation arises from the fact that owing to the present shortage of steel, mills in Alabama will not be able to take over all customers formerly supplied by steel mills in other states. The steel consumer who has had commercial ties with Northern mills will therefore have to pay the freight from the distant steel mill, if he wants to get steel.

Thus some fabricators who have patronized distant mills will be penalized severely. The magnitude of the freight absorption problem is accentuated by the recent rises in freight costs which were made necessary by higher wages. For such companies, the solution may be to move their plants nearer to a steel mill which is willing to serve them, but that is a costly matter, and one that is of questionable value unless it becomes clear that Congress will not overrule the Supreme Court.

Steel companies point out that the discrimination arising from the abandonment of the basing point system will be far greater than the alleged discrimination resulting from freight absorption, as charged by the Supreme Court and the Federal Trade Commission. The latter discrimination was based on the purely theoretical argument that the nearby consuming plant should enjoy a lower price than the one that is more distantly located.

Actually, during the present period of shortages, the more distant consumer will not only have to pay more for steel, and cement, but he will find it harder to place orders for those materials, because steel companies are tending to give better allocations to companies that are located in their own "backyards."

University Research

(*Continued from page 37*)

ing and related fields. To mention a few:

1—A complete literature search was prepared on the preservation of foods by freezing, embracing chemical, biological, engineering and economic factors.

2—A complete literature search was made on water and sewage analysis, over 3,000 references being located.

3—Dry-cell battery technology has been covered in a search which includes over 3,600 abstracts.

4—Nearly 1,000 references on the solvent extraction of oilseeds have been collected, special attention having been given to peanut oil and by-products.

All of these examples are indicative rather than informative, since they represent past work rather than future potentialities.

Knowledge obtained by others and reported by them is their contribution to civilization, and its use in an effective manner is both logical and economic.

Central of Georgia R. R. Reorganization Effected

As of July 1 the reorganization of the Central of Georgia Railway Co. became effective with Merrel P. Callaway as Chairman of the Board, Marion J. Wise, president and Alexander R. Lawton, Jr., as General Counsel.

Marion J. Wise

The period of trusteeship was largely devoted to an extensive program of rehabilitating the property and strengthening the railroad in all the essentials of service. Its successful accomplishment has brought about the modernization and improvement of the Central's facilities and equipment making it one of the best managed roads in the country. Notable instances are: the inauguration of two streamlined trains, Nancy Hanks II, between Atlanta and Savannah and Man O' War between Columbus and Atlanta; the purchase of new locomotives, freight, switch and passenger, diesel and steam; the installation of centralized traffic control for beter train operation; the addition of new freight cars; extension of automatic block signals and the laying of heavier rail.

The reorganization announcement climaxed the long months of work aimed at lifting the railroad out of the unprofitable channels into which so many systems have been forced in recent years. The new Board of Directors will guide the destinies of a railroad important to the Southeast, a railroad that, as a part of the nation's great transportation network, will not only strive to render adequate service, but will also champion the development and progress of the industrial and agricultural Southeast.

The objectives of the Board of Directors will be activated by officers and employees skilled and experienced in their duties, working with modernized equipment and facilities, and united in a determination to supply service that is both dependable and courteous.

Chemicals

(*Continued from page 35*)

to avoid setting up a separate minor group, are all chemical products derived from wood such as distillates and related products.

Thus far in the classification list, it can be seen that the South holds a dominant position, with little lacking in its present productive facilities. When it comes to the remaining three groups, however, the reverse is true. In paints, drugs, and soaps, inadequate progress has been made, and apparently the opportunity involved in these important consumer commodities has yet to penetrate the attention of Southern capitalists.

Paints. In paints the South turns out but 13 per cent of the national output. Nearly three-fourths of all the South's output is produced in three states: Missouri, Maryland, Kentucky. This means that production of paints is almost an unknown art in the other 13 states. With the nation as a whole and the South in particular looking forward to an era of intense building activity, it would seem that some mighty good bets are being overlooked in the field of this important building accessory.

Drugs. The manufacture of drugs appears to be another grossly neglected field. In this category only Missouri and Maryland can be said to have done more than scratch the surface. These two states turn out 50 per cent of the South's total. The South turns out only 11 per cent of the national total. Included with drugs for the present purpose are cosmetics and similar miscellaneous articles usually sold to consumers along with drugs. Neglect of this industrial field means not only that big profits are being lost to competing regions but also that many graduates from the South's universities must migrate to other states to seek a career and livelihood.

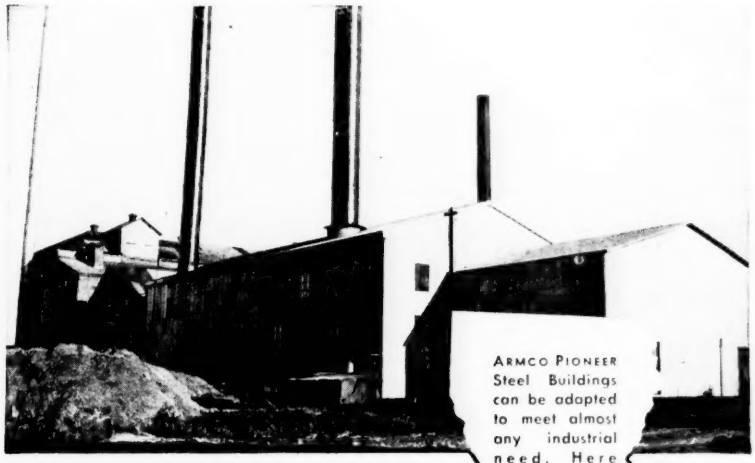
Soap. Lastly, there are soaps. Consumption of soaps by the South greatly exceeds that produced by the sixteen Southern states. The fourth quarter of 1947 may be taken as a representative period. Excluding Missouri and Maryland which have a balance in their favor, there was shipped into the other 14 states during those three months a total of 130,000 tons of soaps and cleansers by Class I railroads alone. Other large quantities came in by truck. Outgoing from the same states was a total of not more than 30,000 tons. Now it may be, in fact is quite likely, that part of Missouri's and Maryland's surplus went into those 130,000 tons. Even assuming, however, that their entire surplus went to other Southern states, it still could not be said that the South produces more than 50 per cent of the soap it uses.

Texas has a new soap plant. It is a large plant, modern in equipment, and is an addition to previously established plants of smaller size. Yet the Lone Star state still imports twice as much soap as it sends out. Certainly there is room in this field for profitable investment. Furthermore, while major soap producers are conceded to have a great deal of capital invested in plants of mammoth size, soapmaking is one form of chemical production that does not necessarily require enormous initial capital. An epic instance is on record where a soap firm started early in the century, in a small garage and with a man and a basket as the sole delivering device, is today rated as one of the foremost producers in the industry.

Here in Alabama, Arkansas, Georgia, Louisiana, Tennessee, all are producing large quantities of oils and fats. But no soap. And it will continue to be no soap until Southern capital gets an eye open to the situation.

Profits. Regardless of this lapse, however, the importance of chemical manufacture to the growth of Southern wealth can scarcely be exaggerated. The industry as a whole employs over 200,000 Southerners. It produces in the South average annual profits of a half billion dollars. Growth since prewar has been

(*Continued on page 78*)



ARMCO PIONEER Steel Buildings can be adapted to meet almost any industrial need. Here PIONEER serves a Louisiana sugar manufacturer.

THESE STEEL BUILDINGS are an old southern custom

For more than 30 years southern businessmen have been satisfying their needs for warehouses, garages, factories and similar structures with ARMCO PIONEER Steel Buildings. This way they get the long life and low upkeep of a conventional building plus substantial, mass-production savings.

In the PIONEER Building a framework of cold-formed steel channels is covered with corrugated metal siding and roofing. The result is a sturdy, weathertight building that is fire-resistant and lightning-safe.

PIONEER Steel Buildings are quickly erected by a trained Armco crew. All you need is the foundation and we'll help you design it if you want us to. Buildings may be of any length, with clear span widths from 20 to 100 feet and heights to 24 feet. They can be easily adapted to individual needs. Doors, windows and ventilators may be placed almost anywhere you like.

Should conditions change, ARMCO PIONEER Buildings can be dismantled and quickly re-erected at a new location. Write for more data.

ARMCO DRAINAGE & METAL PRODUCTS, INC.
DIXIE DIVISION: Atlanta, Ga.
SOUTHWESTERN DIVISION: Houston, Texas
Offices in Principal Cities

ARMCO

ARMCO PIONEER STEEL BUILDINGS

Chemicals—Industrial Giant

(Continued from page 57)

outstanding. In 1939, value of products amounted to $1006 million; in 1947, in current dollars of that year, value of products was $3405 million; in 1939 dollars, $2039 million; an increase in physical output of 100 per cent, and in dollar value 340 per cent.

Detailed data for the first quarter of 1947 follow:

CHEMICAL MANUFACTURE
First Quarter 1947

State	Plant Invest. $ mil.	Number of Plants	Persons Employed	Pay rolls $ mil.	Materials, Power, etc. $ mil.	Other Costs $ mil.	Gross Profit $ mil.	Total Sales $ mil.
Ala.	21.7	116	7,754	4.0	16.7	4.9	5.5	31.1
Ark.	7.6	57	2,726	1.4	5.9	1.7	1.9	10.9
D. C.	.5	19	178	.1	.3	.1	.1	.6
Fla.	15.9	169	5,693	3.3	11.8	3.6	4.0	22.7
Ga.	30.2	243	10,795	5.2	23.5	6.8	7.6	43.1
Ky.	15.0	79	5,345	3.8	10.4	3.4	3.8	21.4
La.	33.1	155	11,827	8.0	23.4	7.5	8.3	47.2
Md.	26.0	172	9,280	7.3	17.3	5.9	6.5	37.0
Miss.	14.6	85	5,206	2.6	11.2	3.3	3.7	20.8
Mo.	48.1	335	17,192	12.2	33.6	10.9	12.1	68.8
N. C.	19.2	179	6,871	3.3	14.9	4.4	4.8	27.4
Okla.	5.1	73	1,826	1.1	3.7	1.2	1.3	7.3
S. C.	11.6	95	4,154	1.8	9.2	2.6	2.9	16.5
Tenn. ...	114.9	148	41,057	31.0	78.3	26.0	28.9	164.2
Tex.	70.9	429	25,533	18.2	49.7	16.2	18.0	102.1
Va.	97.4	134	34,809	22.1	70.5	22.1	24.5	139.2
W. Va. ..	63.7	66	22,763	18.2	42.3	14.4	16.0	90.9
South ..	595.5	2,554	213,009	143.6	422.7	135.0	149.9	851.2

Woodward Iron Co. Aids Alabama Farmers

A far raching decision by Woodward Iron Co. to furnish its entire production of Ammonium Sulphate to the various fertilizer plants of the state has been announced by B. C. Colcord, president of the company.

Approximately 24 million pounds of Ammonium Sulphate are produced by the company each year, and its decision to turn all of this over to the farmers will help fill the great need of this chemical product, which at the present time is quite scarce.

In making this announcement, Mr. Colcord emphasized his company's belief in the great future of the state and the South. "It is Woodward Iron Company's first duty to assist in the development of the state and the South, and by so doing will aid in its industrial and agricultural progress," Mr. Colcord said.

Baltimore & Ohio President Denies Merger is Planned

According to Roy B. White, president of the Baltimore and Ohio Railroad, there is no basis for talk of a forthcoming merger of the B. & O. with the Western Maryland, the Reading and the Central Railroad of New Jersey.

"99 44/100%"

The term "99-44/100% pure" used by a leading soap manufacturer has come to mean top quality.

But quality terms are coming to be used just as much with a leading producer of steel buildings and products—Allied.

From the smallest specifications to big, over-all features, Allied Steel puts top quality materials and workmanship in everything they make.

This Allied Steel Building serves as an alfalfa meal storage building at Memphis, Tennessee.

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Over Fifty Years of Service

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THERE must be a reason if a bank has been known in the South for more than three-quarters of a century as *the* bank for Southern manufacturers. Some of the reasons are its "know-how" on vexing financial matters that beset manufacturers . . . its modern facilities . . . its central location in a key trading area. That's why you, too, should think *first* of First and Merchants.

FIRST AND MERCHANTS
National Bank of Richmond

Capital and Surplus Six Million Dollars

Member Federal Deposit Insurance Corporation

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Thoroughly Dry—Well Manufactured. Scientifically dried and manufactured with most modern equipment.

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Especially suitable for

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and Dwellings

F.H.A. approves the use of Gum Flooring for dwellings in their Bulletin No. UM 2.

We can also furnish END MATCHED PINE FLOORING in any grade or quantity desired.

Let us fill your flooring needs.

Prices and samples will be furnished upon request.

CLARENDON FLOORING COMPANY

SUMTER, SOUTH CAROLINA

(Formerly D. W. Alderman & Sons, Alcolu, South Carolina)

Telephones 1309 and 1589

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Business Notes

Paul M. Dollard, president of the **Daystrom Corp.**, New York furniture manufacturer, has announced that Walter S. Marder, comptroller of the company has been appointed sales manager. He is succeeded as comptroller by Glenwood O. Evans who has been general auditor for Daystrom's parent company, ATF, Inc.

* * *

Chapman Chemical Co., distributors of wood preservative chemicals has opened new general offices in the Dermon Building, Memphis 3, Tenn. Administrative and research activities formerly handled from Chicago and New Orleans will now be consolidated in Memphis where the company has had its plant for many years.

* * *

Edward M. Borger president of the **Peoples Natural Gas Co.**, was elected a director of the Dravo Corp. at a meeting of its Board of Directors on June 16. Mr. Borger has been president of Peoples Natural Gas Co. since 1940 and is a director of that company and the Consolidated Natural Gas Co.

* * *

New quarters for their Houston sales office has been announced by **Cutler-Hammer, Inc.**, Milwaukee, Wis., electrical manufacturers. Located at 2415 San Jacinto St., the new quarters provide expanded facilities for the company's sales activities in that area. Mr. P. H. Greene will manage the office as a branch of the company's Dallas District sales office.

* * *

J. Carl Bode, formerly operating manager,. has been elected president of **National Carbide Corp.** according to a recent announcement.

* * *

Plans for a complete new manufacturing plant and headquarters offices for the **Lincoln Electric Co.** at East 178th St. and St. Clair Ave., Cleveland, have been announced by James F. Lincoln, president. The new plant will represent an investment of more than $10 million, and will completely replace the company's present plant.

* * *

Carolina Telephone and Telegraph Co., Tarboro, N. C., has sold $4 million of 3⅛ per cent debentures, due in 1978, to a group of life insurance companies and a trust company, it was recently announced. The two largest purchasing companies were the New York Life and the John Hancock Mutual Life, each which took $1.5 million of the issue. Other purchasers are the Bankers Trust Co., N. Y., as trustee under four trusts, Western and Southern Life Insurance Co. and the Life Insurance Co. of Virginia.

* * *

Heyden Chemical Corp., announced July 1 that it plans to raise about $6 million through the sale of 59,579 shares of convertible preferred stock. A registration statement was filed with the SEC on June 29. Net sales of the corporation in 1947 totaled $21,981,877 and net profits were $2,715,908. In the first five months of this year sales reached $10,940,409 and net profits were $1,788,157.

* * *

As a climax to its 75th anniversary, **Binswanger and Co., Inc.**, opened its modern, daylight engineered building on a main highway in Richmond, Va. The architecture and signs do a continuous advertising job for glass. Covering almost an entire city block, the structure houses the central and Richmond branch offices, as well as a retail showroom, glass processing departments, auto glass replacement shop, sash and door mill, and complete warehouse facilities.

* * *

An ideal factory location for sale or lease is available through **W. F. Hall** of Sparta, Ga. Located on a paved highway 7 miles from Georgia Railway and served by the Georgia Power Co., this 52 acre tract contains a warehouse, commissary and 20 dwellings, water right and power plant site.

THE WORLD'S MOST POWERFUL HYDRAULIC TURBINES

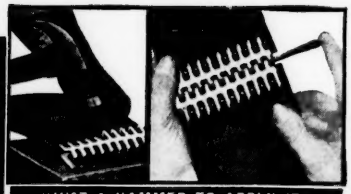
Newport News has received contracts for all 15 of the turbine units awarded thus far for Grand Coulee Dam, the world's greatest power installation. With individual ratings at 150,000 and 165,000 h.p. at 330-foot net head, they are the highest-powered hydro-electric units ever built.

The engineering, efficiency, and workmanship of Newport News built water power equipment has been proven by installations in many of the world's great power developments.

NEWPORT NEWS SHIPBUILDING AND DRY DOCK COMPANY

NEWPORT NEWS, VIRGINIA

BELT LACING and FASTENERS for transmission and conveyor belts



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World famed in general service for strength and long life. A flexible steel-hinged joint, smooth on both sides. 12 sizes. Made in steel, "Monel Metal" and non-magnetic alloys. Long lengths supplied if needed. Bulletin A-60 gives complete details.

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For conveyor and elevator belts of all thicknesses, makes a tight butt joint of great strength and durability. Compresses belt ends between toothed cupped plates. Templates and FLEXCO Clips speed application. 6 sizes. Made in steel, "Monel Metal", non-magnetic and abrasion resisting alloys.

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For catalogs, bulletins or specific information on the subject of Well Water Systems, address

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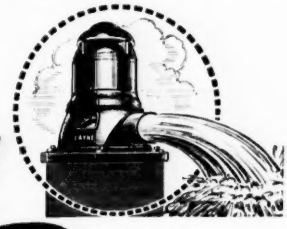


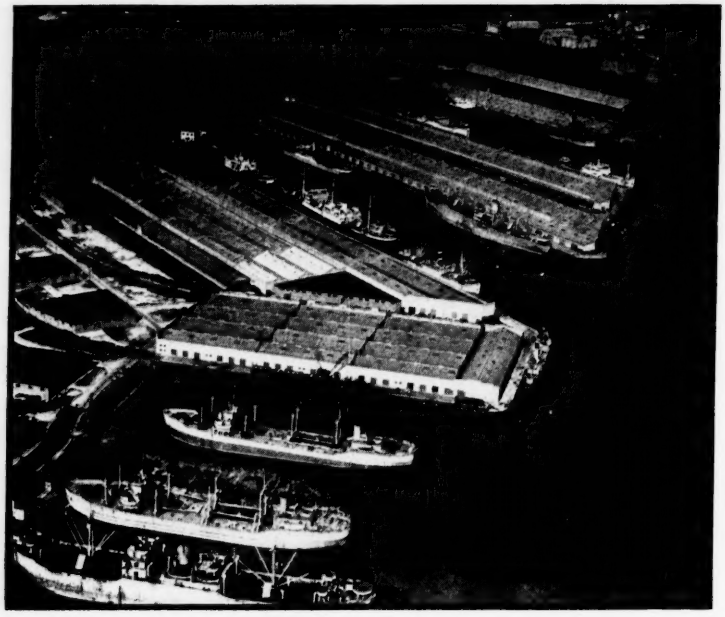
LAYNE WELL WATER Systems

AFFILIATED COMPANIES: Layne-Arkansas Co., Stuttgart, Ark. ★ Layne-Atlantic Co. Norfolk, Va. ★ Layne-Central Co., Memphis, Tenn. ★ Layne-Northern Co., Mishawaka Ind. ★ Layne-Louisiana Co., Lake Charles, La. ★ Louisiana Well Co., Monroe, La. ★ Layne-New York Co., New York City ★ Layne-Northwest Co., Milwaukee, Wis. ★ Layne-Ohio Co., Columbus, Ohio ★ Layne-Pacific, Inc., Seattle, Washington ★ Layne-Texas Co., Houston, Texas ★ Layne-Western Co., Kansas City, Mo. ★ Layne-Western Co. of Minnesota, Minneapolis, Minnesota ★ International Water Supply Ltd., London, Ontario, Canada ★ Layne-Hispano Americana, S. A., Mexico, D. F.

Port of Charleston Sees Opportunity in Wool Imports

The American Wool and Cotton Reporter recently reported, in detail, the expansion of the woolen manufacturing industry in the South, and called attention to the fact that many of the big worsted yarn people (big carpet manufacturers) have set up Southern plants and are amplifying their operations there. Those concerns mentioned were: James Lees of Philadelphia, Mohawk Carpet Co., and Alexander Smith, all of which have Southern mills in continuous and profitable operation. The article goes on to point out that the movement Southward has been on a large scale.

The importance of this movement to the South, and to Charleston, is fairly obvious. Each year some 125,000,000 odd pounds of wool, used in the manufacture of carpets, are imported by the United States. As long as the carpet manufacturing industry was centered in the Northern and Eastern states, this wool was imported through the ports to the North and East. Now the manufacturing is coming South. A lot has already come, and more will undoubtedly follow. The importations of carpet wool will, therefore, be coming through Southern ports, and the prospect of handling a large portion of 125,000,000 pounds annually is pleasing.



THE PORT OF MOBILE which recently observed the 20th anniversary of the opening of the State Docks. The event was staged to call the attention of Alabamians and the nation's shipping interests to the port's modern, efficient dock terminals. The port has climbed from 24th to 6th in the nation in foreign freight tonnage in these 20 years. Already having berthing space for 22 ocean going ships, the State Docks have a $5 million expansion program underway which will provide three more berths, and plans are now being made for another $2.5 million, which will provide two additional berths.

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FROM STOCK
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We also make silent gears of rawhide and Fabroil.

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This high-velocity, large-volume circulator fan ensures a big supply of fresh, cool, clean air—with a blast that can be felt at 80 feet. Tested proved on the job . . . where air in rapid motion will make working conditions bearable.

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GSY-5

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Standard type Strand machines, (lower right) give portable rotary power at constant speeds with dependable results in all grinding, buffing, drilling, wire brushing and rotary filing operations. Hundreds of types and models from ⅛ to 3 H.P. available with suitable attachments for your specific requirements.

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COMING EVENTS

AUGUST—

3—Southern Plywood Manufacturers Association, summer meeting, Henry Grady Hotel, Atlanta, Ga.

5—Summer Furniture Market, Furniture Mart, Chicago.

6-10—2nd International Store Modernization Show, Grand Central Palace, New York City.

20—Chicago Railroad Fair, Chicago's Lake Front.

22-25—National Industrial Stores Association, 22nd Annual Convention and Merchandise Exposition, Hotel Netherland Plaza, Cincinnati, Ohio.

23-26—National Association of Power Engineers, St. Paul, Minn.

SEPTEMBER—

13-15—Associated General Contractors of America, Inc., mid-year meeting of Governing and Advisory Boards, Edgewater Beach Hotel, Chicago, Ill.

13-17—Instrument Society of America, Instrument Conference and Exhibit, Philadelphia.

20-23 — (Tentative) American Mining Congress—Metal Mining Convention and Exposition, San Francisco.

27-Oct. 2—Third National Plastics Exposition, Grand Central Palace, New York City.

29-Oct. 1—Association of Iron and Steel Engineers, Iron and Steel Exposition and Convention, Cleveland Public Auditorium, Cleveland, Ohio.

Byfield

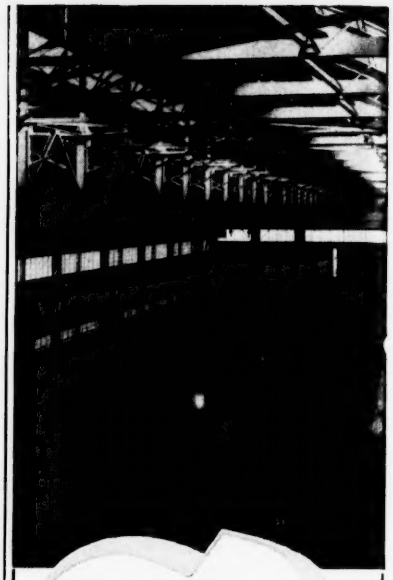
(Continued from page 23)

foolish to attempt any but the most general predictions in this respect. The ratio of annual trading volume to the number of shares listed never dropped below 100% in the 1900-1911 period, but has never gone above 50% since 1931. During World War II the ratio on a numben of occasions dipped to the 10% to 20% range. In 1947 it was 14%. Due to new listings and stock splits recent increases in number of shares listed have been large and soon the 2 billion share figure should be reached. Should the turnover figure reach only the modest ratios of 20% or 25%, annual trading would reach 400,000,000 to 500,000,000. Based on a 1316 hour trading year (the 1947 figure) this would approximate 300,000 to 400,000 shares per hour or an average "normal" day of 1,500,000 to 2,000,000 shares.

Volume Should Rise

In other words the country has grown so tremendously in recent decades not only in population but in wealth, income and resources that even stock exchange volume, caught in the vise of strict and even punitive regulation should soon begin to reflect this same secular trend. There were only six years in the history of the New York Stock Exchange (1927, 1928, 1929, 1930, 1931 and 1933) when total transactions exceeded 500,000,000 shares but at that time the number of shares listed ranged from about 600,000,000 to 1,300,000,000, approximately half today's number on average.

If and when trading volume on the exchanges expands sufficiently to become generally newsworthy, the professional "Wall Street Baiters" will doubtlessly be crying havoc in a jiffy. At that time it is to be hoped that the public will have the benefit of the pertinent facts and figures such as we have attempted to set forth.



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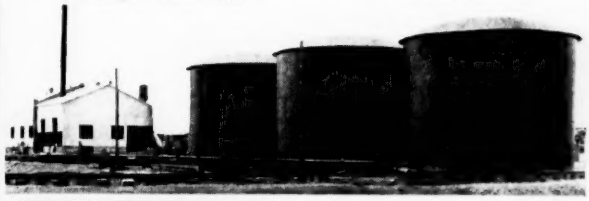

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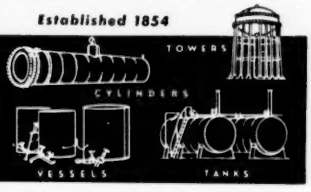

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Tennessee Gas Transmission Co. of Houston will construct a 210 mile natural gas pipe line as part of a second parallel line to the company's system which extends from the Rio Grande Valley to West Virginia. This particular section will lie between El Campo, Tex. and Natchitoches, La.

J. P. Bristow, vice president in charge of operations for Tennessee Gas, said that construction was to start about August 1 and will be completed this year.

Thirteen freighters will be required to transport 64,000 tons of thirty and thirty-one inch pipe from Long Beach, Calif. through the canal to the Texas Gulf ports of Houston and Beaumont.

Construction will start simultaneously from Natchitoches west and from El Campo east. Work will be done with all speed possible in order to increase the gas deliveries of his company to the Appalachain area in time to alleviate the serious fuel shortage expected in the east this winter.

Million-Dollar Mississippi Market Opens on August 1st

Mississippi's new million-dollar Central Farmers Market, scheduled to begin operations on August 1 is expected to draw producers and buyers from a 200 mile radius of Jackson.

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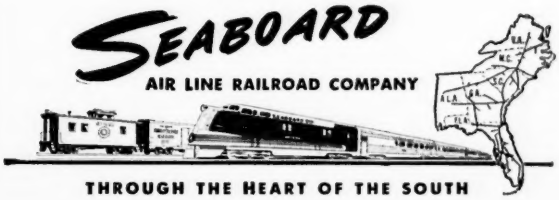


THROUGH THE HEART OF THE SOUTH

Laurel, Miss. Issues New Economic Survey

Twenty-five years ago, MANUFACTURERS RECORD in an article on Laurel, Miss., labeled that progressive community "the City of Cooperation."

Since that time the people of Laurel have used the natural advantages of their area, and the city has grown in a steady, upward surge.

But Laurel, already the center of a number of important industries, is not a city that rests on its "Laurels," as it were.

Just recently, through its Chamber of Commerce, Laurel issued a comprehensive, inch-thick book titled "Information and Economic Survey of Laurel." For industries looking for a new location the book can probably be considered a must—it tells the story of a city with much to offer.

Virginia Chemists Plan Incentive Awards

Establishment of an annual program of incentive awards for Virginia Chemists and students has been announced by the Virginia section of the American Chemical Society.

The awards are to be divided into three classes, and will honor the individual who contributes most toward improving the professional status of chemists, the secondary school teacher who contributes most toward stimulation of interest in chemistry, and outstanding students of chemistry in the area.

N. C. Industrial Investment $238 Million For Last 3 Years

According to Philip Schwartz, industrial analyst, of the Department of Conservation and Development, new industries and expansions of existing plants, including those completed, underway and definitely proposed in North Carolina during the last three years call for investments estimated at $238,378,500.

These projects, totaling 1,673, of which 1,122 are new, will employ almost 94,000 workers with payrolls estimated at some $149,570,000.

These figures include only manufacturing enterprises and do not take into consideration purely commercial projects or buildings of any other nature. They do include, however, investments for buildings and equipment used for manufacturing purposes.

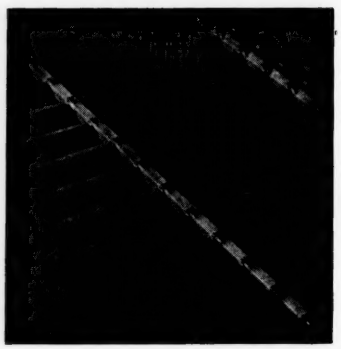
Industrial Stores Assn. Convention and Exposition

Over a thousand buyers and managers of industrial stores are expected to attend the 22nd annual convention and merchandise exposition of National Industrial Stores Association to be held at the Hotel Netherland Plaza, Cincinnati, Ohio from August 22 to 25.

Operators of textile mill stores, particularly those who are members of the Piedmont Region, will have a large delegation in attendance. The coal and steel companies in the Birmingham area are also planning to have their store executives attend this annual convention of industrial store people.

Southern Natural Gas Co. To Increase Capacity

Southern Natural Gas Co. has announced that it is expanding its pipe line system by 42 per cent or from 294,000,000 to 420,000,000, during 1948 and 1949. The company operates its natural gas pipe line system extending from gas fields in Texas, Louisiana and Mississippi to its principal markets in Mississippi, Alabama and Georgia.



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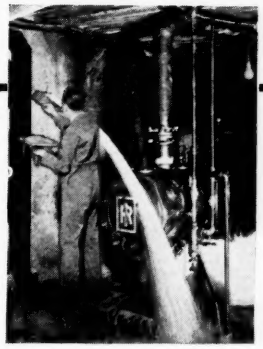

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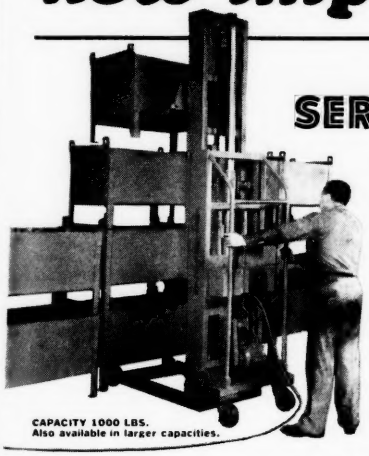

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